

# SCHOOL AND COLLEGE PLACEMENT

Journal of the Pennsylvania Association of School and College Placement

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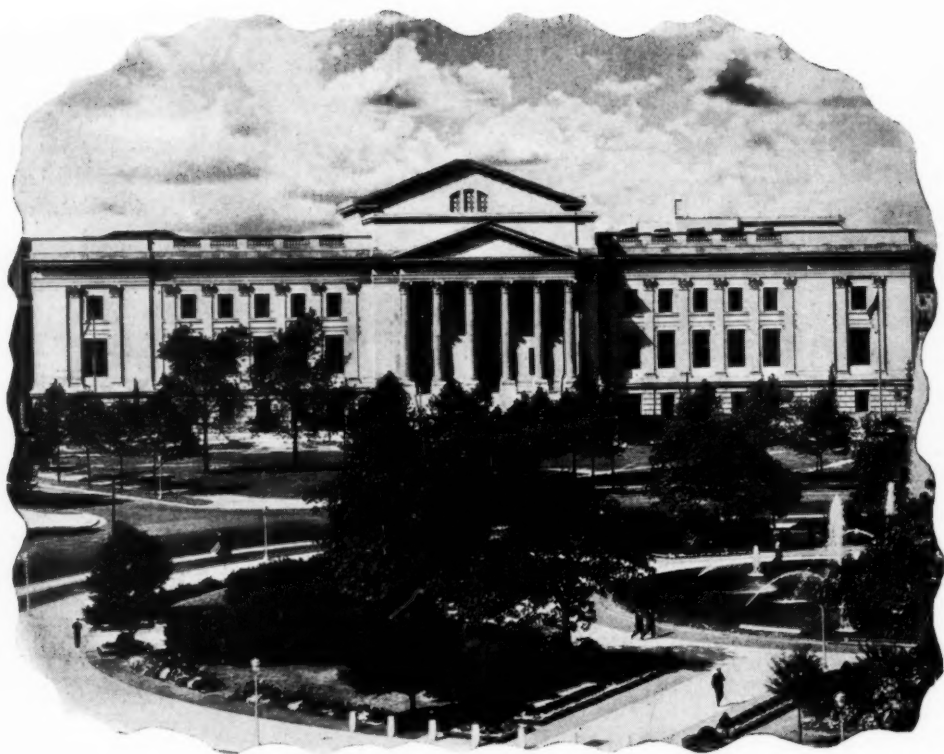
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The Franklin Institute was established in 1824 to make available to the young men of Philadelphia technical training which they could not obtain elsewhere. Classes in the mechanical arts and the sciences were conducted there for 99 years. Out of the early classes the Public School System of Philadelphia developed.

In 1923 the Franklin Institute moved to its present site on the Parkway, classes were dropped, and it became primarily a technical and scientific museum. There, visitors from all over the world are given the opportunity to see the application as well as the theory of science. Dr. Henry B. Allen, whose article appears on page 9, is Secretary and Director of the Institute.

## OCCUPATIONAL ADJUSTMENT AND TOTAL DEFENSE

HOWARD M. BELL

*American Youth Commission  
of the  
American Council on Education*

In the average year, 1,750,000 youth enter the labor markets of America because they need and want jobs. In this mêlée they are confronted with the necessity of choosing their work from over 400 industries and 18,000 occupations.

In our present scheme of things, the great majority of these youth are forced to make their vital decisions alone. I say alone, because only a minority of schools offer their pupils anything that might pass for realistic vocational guidance, and, in spite of recent expansion, only a minority of public placement offices offer specialized services to young, inexperienced applicants.

For years this sort of thing has been going on. Here and there forward-looking schools, colleges, and public employment offices have struck out independently to tackle the problem and have met with gratifying success. Yet, the fact stands that almost nowhere are all the services and all the agencies properly involved in an occupational adjustment program effectively coordinated. Too often the agencies that are taking the leadership operate under the handicap of faulty integration with other agencies. The result is usually a regrettable degree of duplication and waste for the agencies and inadequate service to the youth.

The American Youth Commission, for the past three years, has made intensive studies of the problem of occupational adjustment



Dr. Bell

and has made specific recommendations on how the problem can be met. These recommendations appear in a pamphlet entitled *The Occupational Adjustment of Youth* and may be had for the asking. The subject has been further explored in a volume entitled *Matching Youth and Jobs*, which has been recently published by the Commission through the American Council on Education.

The data upon which these recommendations are based were uncovered in the course of an eighteen-month, experimental and demonstrating project jointly sponsored by the American Youth Commission and the United States Employment Service. The research was done in eight areas and involved the services of 124 economists, psychologists, and job analysts. Nowhere, at any time, has the problem been so intensively and widely explored.

In a sense, the Commission's venture into the field of occupational adjustment was an inspired move. I say this because, at the time its findings were analyzed and made available for general use, the nation was entering upon what may turn out to be an era of unprecedented production and employment. As increasing number of workers are put to work, the dangers of occupational maladjustment are correspondingly increased.

Today, as never before, we need adequate, realistic and intelligently integrated pro-

grams of occupational adjustment. We need these programs operating in all of the nation's 1,600 labor markets. We need them badly and we need them now.

No longer can occupational adjustment programs be waved aside as academic, or treated as a visionary offspring of social evangelists. Placing the nation's workers in the kind of jobs they are most clearly qualified to perform has become more than a clearly desirable characteristic of an efficient economy. It is a very real necessity if we are successfully to meet the challenge of total defense.

In a nation so conspicuous for its industrial efficiency, the pervasive apathy toward occupational maladjustment can only be described as incredible. The only possible explanation, at least for the past few years, is an economy hopelessly glutted with eight to twelve million unemployed. During these dismal years, labor shortages were almost unheard of. If a worker turned out to be a square peg in a round hole, the usual practice was to fire him and hire another. After all, there were millions of applicants waiting "at the gate." Why bother with trying to shift the worker to a job he was clearly qualified to perform?

It is a tragic misfortune that it has required the threat of war to bring us to a realization of the vital importance of matching the abilities of workers with the requirements of their jobs. But it is an ill wind indeed that blows no good.

Assuming then that the provision of adequate occupational adjustment services is an essential part of a defense program, how can these services be rendered to those who need them? What, specifically, *are* these services; and what agencies are responsible for providing them?

There are four basic services involved in an adequate program of occupational adjustment. These are realistic vocational guidance, appropriate vocational prepara-

tion, discriminating placement service, and occupational research. These services become effective only to the extent that they are intelligently coordinated. The basic agencies involved in a program are the homes, the schools and colleges, the public employment service, and to a lesser extent, the NYA, the CCC, and the private agencies that are concerned with the adjustment of youth. Like the services specified above, these agencies become effective in an adjustment program largely to the extent that their activities are intelligently coordinated with the activities of the other agencies concerned.

In the space that remains, I should like briefly to discuss these services and the responsibility of the several agencies in providing them. But, before doing so, I should like to emphasize that the process of inducting workers into appropriate occupational fields is not to be accomplished overnight. If it is done right, it is a long-time process. Like a good many other things, it begins at home.

### The home

Thanks to this mixed blessing we call mass production, the average modern home has lost much of its former character as a "vocational laboratory." Things that were formerly homemade are now bought, and things which once were repaired are tossed to the junk dealer and replaced. Thus, modern youth are deprived of what was once an ideal opportunity to try themselves out at various tasks.

The average parents, moreover, have neither the technical ability nor the emotional detachment that realistic counseling requires. Even so, they have two important functions to perform. One of these is negative and the other positive. Negatively, parents can resist the impulse to dictate occupational choices to their children. They can forget all about the fact that Daddy was



a great lawyer and Uncle Henry a successful architect. They can, instead, encourage their children to see the occupational picture clearly and see it whole. Within reasonable limits, the more vocational exploration young people do the better.

Positively, the parent can get behind local professional leaders and groups and give to the development of adjustment programs the good will and support they need and deserve. In the last analysis, people get the kind of education for their children that they sincerely want. If they sincerely want the schools to prepare their children for the almost universal experience of adjusting themselves in a complicated labor market, they will, in time, get exactly that.

### The schools

Despite the fact that only six percent of the nation's high schools employ guidance officers, the school's responsibility for the provision of realistic vocational guidance is universal and inescapable. The precise manner in which this guidance is provided to pupils is relatively unimportant. The important thing is that it be provided. With existing resources, many schools cannot employ guidance specialists. They can, however, inculcate a guidance philosophy into their programs and encourage principals and teachers to assume the essential guidance functions.

In a recent study made by the Youth Commission, 87 percent of the eighteen-year-old youth who came to public employment offices for jobs could not be classified occupationally on the basis of previous diagnosis, training received, or actual work experience. They were just applicants, as befuddled as Ferdinand in the bull ring. Yet all of them had just emerged from the classrooms of a school. This need not and should not be. Young people, through the teaching of up-to-date and locally meaning-

ful vocational information should be taught the realities of this "world of work." And they should be brought to a realistic understanding of their occupational potentialities. Before they ever reach a placement office, they should at least have some sensible ideas about what they have to offer employers and what employers have to offer them. Guidance is not a luxury for the problem child. It is a need of *all* youth. It should be provided by schools without apology and without reservation. And it should be provided with the same sense of propriety with which we teach Latin verbs, Greek plays, and *The Lady of the Lake*.

To the extent their resources permit, the schools, moreover, have an inescapable responsibility for the provision of vocational education. By vocational education I do not mean intensive instruction in a specialized occupation. By vocational education I mean the broadest possible exposure to the realities of earning a living. Among other things, this includes instruction in vocational information. It includes visits to places where work is done, and, reversing the process, visits of representative workers to classrooms where occupations are studied. It might well include pupil participation in local occupational surveys. In all these activities vocational education and vocational guidance go hand in hand. One strengthens and supports the other. Both are devoted to assisting the individual to make a wise vocational choice.

In the provision of specialized and intensive instruction in a single occupation, public schools, as I see it, have a definitely limited responsibility. This responsibility is limited primarily because only a minority of the 18,000 occupations in American business and industry require specialized vocational training. It is also limited by the fact that industry has, and is, assuming considerable responsibility in the provision of specialized vocational training. And it is

further limited by the slow but gradual resurgence of apprenticeship programs.

### **The public employment service**

In any intelligently integrated adjustment program, the placement office is directly tied in with the schools. The analysis of individual potentialities, as discovered by school counselors and teachers, and set down on cumulative records, is picked up and carried on by placement counselors. By this means and only by this means, does guidance become the "continuing process" which it is supposed to be and yet so seldom is.

Nowhere could one find a more appropriate example of the need and desirability of agency coordination than in the relationship between the school and the placement office. Regardless of whether the school, college or public employment office assumes the placement function, the desirability of coordination between the agency providing vocational guidance and vocational education, and the agency providing placement service, remains the same. When close working relationships are developed between these two agencies, the placement counselor need not start his diagnosis from scratch. Rather, he will merely start from the point where the school or college left off with the result that costly duplication of service will be eliminated and the individual will be better served.

It might, and doubtless will, be said that practices such as the one suggested above are so obviously desirable as to be trite and platitudinous. Yet the local situations in which this kind of thing is effectively and consistently done are almost as rare as the proverbial rubies.

### **The whole community**

To be genuinely and lastingly effective, an occupational adjustment program must be a community-wide enterprise. By "community" I do not refer to every one of the

16,000 hamlets, villages, towns and cities of America. So far as occupational adjustment is concerned, a community is simply a local labor market. Thus, an occupational adjustment program, rightly considered, encompasses all of the agencies and political subdivisions that are included within the roughly defined borders of a local labor market.

The labor market approach to the development of an occupational adjustment program is relatively new. To some, it may have an academic odor about it and smack of the ivory tower. Yet it is one point on which the 124 analysts of the project previously referred to were unanimously agreed. The local labor market is the real "adjustment community." Job seekers are no respecters of town, city, county or even state lines. They take their jobs where they find them.

When the homes, schools, colleges and public employment offices provide their share of adjustment services, the big remaining job will be the integration of these activities on a labor market basis and the provision, by a central labor market group, of those essential services that cannot be economically provided directly by the participating agencies and localities.

I suspect that the above sentence may sound abstruse, at least. It is intended to suggest that certain services, essential to an adequate program, cannot be effectively and economically provided by all the agencies, particularly the small schools, which should be involved in the program. All schools, for example, cannot be expected to carry on occupational surveys, labor market studies, and other types of occupational research. Yet all schools need the results of such research if their guidance is to be realistic and their vocational preparation appropriate. It is therefore urged that this function be performed by a "labor market group" which will be supported by all participating

agencies and localities, and will serve all participating agencies and localities.

The possibilities of this type of collaboration and consolidation have hardly been scratched. Yet, if *all* the services, including testing, which *must* be included in an adequate program are ever to be provided to *all* the youth who need them, this kind of collaboration and consolidation of resources is the only practical way out. It will require planning. It will involve the painstaking and sometimes shocking business of doing things as they haven't been done before. But they can be done, and they should be done.

The end result of the kind of program which I have outlined will inevitably be the reduction of human frustration and economic waste. It will stimulate the constructive revision of curriculums, especially those designed for the 80 percent of boys and girls who cannot hope to enjoy the benefits of a college education. It will narrow the disparities which so often exist between the training youth receive and the work they are ultimately able to find. It will put an end to some of the blasted hopes of adolescents who see the world as a white-collared Utopia,

peopled with Pasteurs, test pilots, airline hostesses, and G-men. It will inject a larger measure of meaning into democratic ideals by facilitating the discovery of latent powers of leadership in people of all levels. And, by facilitating the placement of workers in the kind of jobs they are most clearly qualified by aptitude, ability, and interest to perform, these programs will increase the production of our workers and the productivity of our economy.

These things have always been important, but somehow we have never got around to taking them very seriously. The exigencies of total defense have forced us to think about them and to devise ways of bringing them about. We have the modest resources which such programs require. We have the agencies, and, in our colleges, schools, employment offices, labor unions, teachers associations and youth-serving agencies, we have the personnel. What we need, and need badly, is 1,600 spark plugs. With one such person hammering eternally away in each of America's 1,600 labor markets, recruiting help for all the agencies and localities involved, the job would soon be done.

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### GUIDEPOSTS FOR YOUTH

The current discussion as to the softness of American youth will doubtless result, as similar discussions have, time out of mind, in getting us nowhere. There is always a "youth problem" and there always will be. More to the point are the recommendations just made public by the American Youth Commission, which suggests that we do more to bring together the right job and the right young man or woman. Each year about 1,750,000 young people between the ages of 15 and 24 stop studying in school and try to get on a payroll. For most of them the next move depends on chance.

The Youth Commission suggests: (1) that high schools concentrate on the four out of five students who won't go to college rather than the one out of five who will; (2) that manual skill be recognized as part of a general education; (3) that vocational instruction in high schools be keyed to jobs actually open in the localities in which the schools exist; (4) that vocational counselors, one for about every 300 students, help bring students and jobs together; (5) that schools keep in touch with students, and give them continuing advice, after graduation; (6) that employment agencies maintain vocational counselors to advise all job applicants, regardless of age.

No nation in history has ever fully utilized all its talents. The knowledge to do so has not been available. Now we have a good idea of how to proceed and need only the will to go ahead.

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# A PROGRESS REPORT

The Philadelphia Advisory Council  
on  
Vocational Education for National Defense

HENRY BUTLER ALLEN

*Chairman of the Philadelphia Advisory Council on  
Vocational Education for National Defense*

Under the influence of the Job Mobilization Program in Pennsylvania, instituted by Governor Arthur H. James in the spring of 1940, the Board of Public Education of Philadelphia authorized the operation of a summer school, beginning July 1, 1940, for the retraining or refreshing of out-of-school unemployed persons over 18 years of age, to increase their employability.

The school was operated in seven school buildings on a schedule of seven weeks, five days a week, offering subjects in fields in which employment opportunities were opening. The courses included automobile body reconditioning, machine shop operations, sheet metal work, blue-print reading and shop sketching, household occupations, power sewing machine operation, electric welding and oxy-acetylene welding. Accommodations were provided for about 1,200 students—and the classes were filled during the first week.

In planning the summer program, conferences were held with representatives of the schools, the metal working industries, the State Employment Service, the Junior Employment Service of the Board of Public Education, the National Youth Administration, and the Department of Public Assistance. Tentative quotas were accepted by the respective agencies for the selection and referring of trainee applicants to the sum-



*Dr. Allen*

mer classes. These applicants were interviewed during June by vocational school coordinators on a basis of individual counselling and vocational adjustment, preference being given to persons of some background of training or experience in the fields in which training was desired.

In addition to these pre-employment courses, instruction in blue-print reading was provided in two manufacturing

plants at the request of the company executives, for the upgrading of employed mechanics. ■

The financing of the summer schedule was arranged partly by State allotment of funds under the State Retraining Act (Act 389) and partly by the Board of Public Education, under the reimbursement provisions of the Federal and State vocational education laws.

## Federal Act

On July 9, 1940, the Pennsylvania Department of Public Instruction announced the authorization, by the federal government, of a program of vocational education for national defense. An appropriation of \$15,000,000 was made, to be disbursed by the United States Office of Education through the states to boards of education in school districts having adequate vocational



education facilities, and located in manufacturing centers. Some \$500,000 was allotted to Pennsylvania for expenditures during the summer and early fall. Philadelphia was awarded a considerable part of this sum.

The state and federal offices of education immediately accepted the schedule of retraining in Philadelphia, as approved under the new national defense vocational education program, with the exception of two courses which were not included in the federal list of industries essential to national defense. The summer schools continued to conduct these two courses, however, in accordance with the original financing plan.

Federal financing of the defense program of training provided for complete reimbursement, through the State Department of Public Instruction, of all maintenance costs incident to defense training which could be arranged to meet the federal prescriptions and definitions. No funds were available, however, for new equipment or new housing facilities.

The law (Section 12, P.L. 668, 76th Congress) commissions the Office of Education to make payments to the states for the cost of courses given to train for national defense.

The courses of less than college grade, provided by vocational schools pursuant to submitted plans, approved by the United States Commissioner of Education, were defined to include:

- (a) Subjects to supplement employment in occupations essential to the national defense, to improve the skill or knowledge of the workers;
- (b) Pre-employment refresher courses, for workers preparing for such occupations selected from the public employment office registers, who by training will become qualified for employment in jobs essential to the national defense program.

### Preliminary Steps

As required by provisions under the law, and in keeping with a long established practice of seeking the counsel of industrial and other interested groups for guidance in operating and extending vocational education, the Department of Superintendence invited about 60 representatives of employers, organized labor, and governmental agencies, to a conference in the Board of Education Administration Building on July 23, 1940, to consider the training needs of industry and to secure the collaboration of all interested groups in the development and operation of a functional vocational program for national defense.

### The Charter

One specific recommendation of the United States Commissioner of Education was the formation of advisory committees in the various states, consulting labor and industry on such matters as the following:

- A. Need for training. Jobs for which training is needed. Numbers to be trained.
- B. Courses to be given.
- C. Selection and qualification of persons to be employed as teachers.
- D. Shop and equipment to be used for the training program.
- E. The character and extent of the instruction given.
- F. The qualifications of the persons to be admitted to the training program.
- G. The elimination or transfer of trainees who are not properly developing in the training program.
- H. Effectiveness of the program—placement and follow-up.

Following the advice given at that conference, a second meeting was held on August 9, 1940, in the Administration Building, to which were invited persons nominated by the Industrial Bureau of the Philadelphia

Chamber of Commerce, the Central Labor Union of Philadelphia, the Congress of Industrial Organizations of Philadelphia, various governmental agencies, and the public schools.

The object of the meeting was the formation of a representative Advisory Council to work with the schools in the development of the defense work. The various groups agreed to participate in an Advisory Council. Dr. Louis Nusbaum, Associate Superintendent of Schools, was made Temporary Chairman. An organization committee, composed of the following, was appointed: Mr. L. B. F. Raycroft and Mr. E. S. Sparks for employers; Mr. Norman Blumberg and Mr. Carl Bersing for organized labor; Mr. Franklin G. Conner for the State Employment Service; and Dr. Louis Nusbaum for the public schools.

### Organization

On August 21, 1940, the Philadelphia Advisory Council on Vocational Education for National Defense was formally organized. The thirty-four members present adopted the following recommendations:

- (1) That the body be known as the Philadelphia Advisory Council on Vocational Education for National Defense.
- (2) That it be composed of representatives of labor, industry, schools, and governmental agencies, able and willing to contribute to the purpose of the Council. Members to designate alternates to act in their places when necessary.
- (3) That there be a Chairman and four Vice-Chairmen; the Chairman to be an impartial authority not directly connected with labor, industry, or the schools; and the Vice-Chairmen to be representatives of industry and of labor, two each; the two for labor being chosen one from A. F. of L. and one from C.I.O.

- (4) That there be an Executive Committee consisting of the Chairman, four Vice-Chairmen, a representative of the Philadelphia Public Schools, and a representative of the State Employment Service.

- (5) That the Executive Committee act as the official clearing house for the Council, with the power (a) to call upon any member or members of the Council for advice or contribution of services in sub-committee activities; (b) to add members to the Council as may be advisable; (c) to report to the school authorities and to the Council in such manner and at such time as may be considered best; (d) to supervise any publicity regarding the activities of the Council or its committees; (e) to permit each member of the Executive Committee to designate an alternate to act in his place when necessary.

The following were elected members and alternate members of the Executive Committee of the Philadelphia Advisory Council on Vocational Education for National Defense:

CHAIRMAN	Dr. Henry Butler Allen, <i>Secretary and Director</i> <i>The Franklin Institute</i>
VICE-CHAIRMAN	Carl Bersing, <i>President</i> <i>Philadelphia Industrial Union</i> <i>Council</i>
ALTERNATE	Harry Block, <i>International Vice-President</i> <i>United Electrical, Radio and Machine Workers of America</i>
VICE-CHAIRMAN	Norman Blumberg, <i>Vice-President</i> <i>Central Labor Union of Philadelphia</i> <i>Secretary, Painters District Council</i>
ALTERNATE	Charles Sehl, <i>District Business Agent</i> <i>International Association of Machinists</i>
VICE-CHAIRMAN	L. B. F. Raycroft, <i>President</i> <i>The Electric Storage Battery Co.</i> <i>Chairman, Industrial Committee,</i> <i>Philadelphia Chamber of Commerce</i>
ALTERNATE	Roger F. Evans, <i>Director</i> <i>Industrial Bureau, Philadelphia</i> <i>Chamber of Commerce</i>

VICE-CHAIRMAN	Earl S. Sparks, <i>Secretary</i> <i>The Metal Manufacturers Association of Philadelphia</i>
ALTERNATE	J. G. Goodrich, <i>Assistant to the Secretary</i> <i>The Metal Manufacturers Association of Philadelphia</i> Franklin G. Conner, <i>District Manager</i> <i>Pennsylvania State Employment Service</i>
ALTERNATE	Edward A. Sibley, <i>Assistant District Manager</i> <i>Pennsylvania State Employment Service</i> Dr. Louis Nusbaum, <i>Associate Superintendent</i> <i>Philadelphia Public Schools</i>
ALTERNATE	Charles F. Bauder, <i>Acting Director of Vocational Education</i> <i>Philadelphia Public Schools</i>

### Progress

The first important report made was based on a 35-page detailed study, submitted as a preliminary report to the Council by its Executive Committee, as prepared by two of its members—Earl S. Sparks, Secretary of the Metal Manufacturers Association of Philadelphia, and L. B. F. Raycroft, Chairman of the Industrial Committee of the Philadelphia Chamber of Commerce.

The study relating to private competitive industry and not including Government owned Arsenal, the Navy Yard and the Naval Aircraft Factory, revealed that during the last world war, defense expenditures in the Philadelphia Ordnance District were approximately 22% of the national total. The City of Philadelphia, as the largest industrial center in the Ordnance District, naturally produced a sizable proportion of this World War I total. Based upon previous experience, it therefore can be assumed that national defense expenditures in Philadelphia will total approximately one (1) to one and one half (1½) billion dollars, during this emergency. Knudsen Commission contracts for this City now total 130 million dollars for the three months, June 13th to September 30th, but there has also been placed a 600 million dollar contract with the Philadelphia Navy Yard and 100 million

dollars additional orders are scheduled for Cramp's Shipyard. Thus today Knudsen contracts, let and scheduled, approximate 830 million dollars, alone, in the City of Philadelphia, and nearly 995 millions in the Philadelphia industrial area.

Taking into consideration a variety of influencing factors, such as mechanization, commodity values, and hourly schedules, the report indicates that the total potential labor demand resulting from national defense expenditures in Philadelphia will be 69,375 unskilled, semi-skilled and skilled male and female workers a year, for every third of a billion dollars' worth of defense material.

On the basis of the previous World War emergency, and the present Knudsen Commission contract awards, it is found that approximately 75% of the expenditures in Philadelphia will be in the metal and metal products industries; approximately 5% in the textile industries; 1% in chemicals; and lesser percentages in the other industrial groups. The study further breaks down the expenditures in the metal and metal products industries into nineteen occupational classifications.

These estimates for additional employees constitute the prospective demand which the present National Defense Program will impose upon private industrial concerns in Philadelphia and the Philadelphia Industrial Area. Obviously, a greater demand will be in effect once the National Defense program is under way, for the beneficial results of additional factory employment and increased total industrial payrolls will filter through into our commercial structure and necessitate the additional employment of new workers to handle the increasing demands in our commercial establishments. The sub-committee is now preparing a continuation of its report to cover labor demands of Government Arsenal and Navy Yard.

While there is already in Philadelphia an ample labor supply, many workers must be trained, and others retrained, for National Defense purposes. The situation presents to vocational educators a problem of gigantic proportions.

To further aid the schools, a Sub-Committee from the Council under the Chairmanship of Mr. Dawson Dowell, Professor of Mechanical Engineering, Drexel Institute of Technology, has started "to study the situation in conjunction with the schools, to recommend any modifications in, or additions to, the subjects now being taught, the adequacy of the courses, the facilities and teaching personnel, the possibility of expanding present facilities, the use of other schools or centers."

And another duty of the Council, now being carried out, is the study of the effectiveness of the program, from the standpoint of placement of trainees.

### The Future

The speed and thoroughness with which we become prepared will determine the extent to which our country will not suffer from the present cataclysm.

A major responsibility for success rests with those who produce the material for defense—employee and employer. They are, together with our armed forces, our first line of defense. The worker, as also the soldier, has to be trained. This is the duty of the employer and the school, working together, not only for the immediate needs of today, but more toward the months ahead when preparedness orders are at full tide. The Advisory Council is the agency where the three essential components of the one body of American citizens, Labor, Industry and the Schools, can meet and together work out vocational training problems toward even greater effectiveness.

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# PENNSYLVANIA'S INDUSTRIAL NEEDS

H. P. HAMMOND

*Dean, School of Engineering  
The Pennsylvania State College*

A survey of the need for technically trained personnel in the industries of Pennsylvania which are engaged on National Defense contracts was recently completed. The findings of this survey are here recorded.

For the purposes of the survey, the State of Pennsylvania was divided into three districts, namely the Philadelphia district, including the east bank of the Delaware River; the Pittsburgh district; and the balance of the State. The districts were surveyed by Mr. W. T. Spivey of Drexel Institute, by the Extension staff of the Pennsylvania State College, and by Mr. John D. Beatty of Carnegie Institute of Technology, respectively.

The survey was conducted by sampling typical industries and firms. In all, 101 companies were represented in the analysis. Each company was visited and the number of men needed was obtained by a careful study usually made by the chief personnel officer or a responsible executive of the company. These companies indicated a need for 4,422 technically trained men; that is, engineers of various ages and degrees of proficiency, but all such as would be graduated by a standard engineering college. The

companies represented in the summaries did not include all of the manufacturing industries engaged in Defense contracts. In the Pittsburgh district a multiplying factor of approximately 1.7 was found to represent the ratio between the total number of employees in all manufacturing industries of the district to the number of employees in the industries canvassed. The total number of men required for defense work between now and June 1st was found by this survey to be 4,422 for the industries canvassed, as mentioned above. Using the multiplying factor indicated above, the needs would be approximately 8,000 men. The actual number of jobs which are required to be filled is indicated by the following table:

Inspection and Testing	787
Design	1,570
Physical Metallurgy	370
Production Engineering	331
Production Supervision	884
Marine Engineering and Naval Architecture	263
Aeronautics	95
Miscellaneous	122
Total	4,422

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# ENGINEERING COLLEGES IN THE NATIONAL DEFENSE PROGRAM

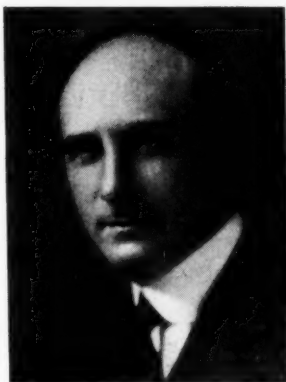
A. A. POTTER

*Dean of Engineering  
Purdue University*

Education in America has always been under local control. With the passage of the Morrill Land-Grant Act the National Government entered education as an important factor in the fields of agriculture and in mechanic arts, the term mechanic arts having been defined by the Executive Committee of the Association of Land-Grant Colleges and Universities on November 13, 1914, as a "broad educational term which includes engineering education as its higher or professional phase, trade school and short course instruction as its collateral and extension phase, and experimental and other technical investigation as its research phase."

## **Primary Purpose of Engineering Colleges**

Engineering of a century ago was mainly an art. Thus, engineering colleges during the earlier years of their existence stressed manual dexterity; they were concerned more with training for the acquirement of skill than with education in basic principles; they placed major emphasis upon studies which led to usefulness immediately after graduation and not upon general educational values. Developments in transportation, mechanical power, communication, illumination, chemical technology, mining, metallurgy, manufactured gas, central heating, mechanical refrigeration and other new industries and public utilities have resulted



*Dean Potter*

in a demand for special educational preparation. Engineering colleges attempt to meet these new requirements by setting up numerous specialized engineering curricula. In fact, there developed a tendency to magnify the differences between civil, electrical, mining, mechanical and other branches of engineering. This has resulted in training specialists who are fairly well versed in one narrow branch

of engineering but lack preparation in basic theory and an appreciation of the work of other engineers. Actually the work of the engineer in practice has not followed these branches of specialization set up by engineering colleges and the engineering societies, but has been organized largely along the functional lines of research, design, production, operation and sales.

Meanwhile the underlying sciences have been growing complex as rapidly as have their applications to industry. Also, organized society has become diversified even more rapidly than either. Thus the gap between what the incoming freshman student knew and what the engineer in practice was expected to know became too broad to bridge in four years. During the past thirty years there has been a definite trend away from the purely utilitarian and specialized in engineering education. The engineering colleges have given up the idea of trying to train, in a four-year undergraduate curriculum, specialists for the various fields

of application. The best of these institutions have been tightening up their entrance requirements, and have been concentrating upon subjects which are basic and which the student has difficulty in acquiring by his own efforts. While the scope and range of the engineering field have been constantly broadening, increased emphasis is not being placed by engineering teachers upon fundamentals. Completeness of details is being subordinated to thoroughness. The providing of a background of engineering knowledge is not being considered as important as development of ability to reason logically and to arrive at truth by observation and analysis. The time given to informational courses is being greatly reduced and an effort is being made to awaken the creative instinct of the student, and to stimulate independence of thought and self-reliance. Specialization is being definitely discouraged for undergraduates, but is given a place in connection with research in the graduate programs of study which lead to the higher degrees.

Until very recently, the interest of engineering colleges has centered in undergraduate instruction, as industry and the engineering profession have given inadequate recognition to resident graduate study. However, during the past decade graduate study or some other form of advanced study has become a necessity for the higher technological posts of industry. In several cases industries have perfected special arrangements with the educational institutions of their localities so that the engineering college graduate may complete requirements for higher degrees by pursuing advanced study during either the day or the evening while he is gaining industrial experience. Growth in graduate study has been particularly noticeable since 1930, as many of the unemployed have been striving to improve their education. Graduate study is now

receiving definite encouragement at a number of engineering colleges as the preparation of their staffs has improved and as better research facilities have become available for the solution of new and advanced problems.

Engineering touches the life of every person in an industrial nation, so that the general well-being is vitally dependent upon the education of the engineer. From its origin and nature, the engineering college has in the past fallen short of the prime glory of the so-called classical or liberal arts college, which has been fairly successful in inculcating in the minds of its students a strong sense of personal responsibility to their order, their country and their civilization. This may be partly responsible for the fact that engineers have been in the past too much concerned with the problems of their specialty, and have given little attention to the wider significance of their work or to their social responsibilities. The engineer must assume the responsibility of social leadership along with representatives of other major professions, in order to aid in stabilizing our national economy and to insure a true democratic government. We as teachers of engineering, must develop a better attitude on the part of the engineer of tomorrow toward public questions.

The engineer is expected to utilize economically the findings of science in order to provide better and easier ways of satisfying human needs. Thus, the engineer who creates new knowledge or who utilizes existing scientific knowledge must give special consideration to costs and values, to the economical utilization of science and to the effect of his work upon human happiness. Thus, it is fortunate that a representative committee of our engineering teaching profession has reported "On Aims and Scope of Engineering Curricula" (*Journal of Engineering Education*, Vol. 30, No. 7, March, 1940).

### **Responsibility to Government and the Public**

The land-grant institutions developed on the part of the states a sense of responsibility for technical education and have contributed greatly to the permanent welfare of our people through their graduates who have become leaders in agricultural, industrial and home-making pursuits. The type of education which is included in land-grant college programs has had a great disciplinary value in teaching many thousands of young people industry, seriousness of purpose and useful services to humanity. Some of the curricula have developed in students accuracy, system and thoroughness, other courses have instilled a love for nature and an appreciation of the individual to his community, and still others have improved the homes of the nation by teaching to thousands the sciences and arts which contribute to happy family relationships.

The land-grant engineering college rests upon the foundation of state and national support. Accordingly, this type of engineering college has a special obligation to interest itself in good government and in training for high-grade and patriotic citizenship as well as for effective and creative engineering leadership.

The welfare of the engineering profession is more closely tied up with government than ever before. Not only is the success of the National Defense Program mainly dependent upon the engineer but many functions of government are becoming largely technological in character. Municipalities, states and the Federal Government are constantly carrying on a variety of engineering operations and are becoming concerned to an increasing extent with the regulation of engineering enterprises as well as with the operation of technical industries. Then there has been a rapid expansion during recent years of government agencies relating

in one way or another to the development of our national resources. In fact, our government is becoming the largest employer of engineers.

### **Protection of Staff in the Interest of National Defense**

There is a grave danger of depletion in our teaching and research staffs by reason of the selective service draft, the call to active duty of the National Guard and Officers Reserve, and the need by industry of large numbers of well prepared and experienced engineers to design and to supervise the rapid production of equipment needed for military defense.

Those responsible for the teaching and research programs at land-grant institutions must realize that their responsibility to insure prompt preparedness and an adequate national defense program is even greater than of those connected with other types of engineering institutions. We must make certain that every person on our staff renders maximum usefulness during the present emergency, whether it be at his present post or in the direct service of government. In many cases superior teachers, who have no special aptitudes for military assignments, can perform their greatest service through the training of engineers. Those responsible for the administration of instruction, as well as key investigators engaged in research of value to the National Defense Program should also remain at their posts. At the same time it is unwise to ask for special consideration of minor staff members, and particularly for part-time research or teaching assistants, or for others whose places can be easily filled.

It is our duty, through our contacts with industry, to prevent manufacturers from attracting from our institutions on short notice superior teachers and investigators. We should point out to industrialists that without effective teachers today there will be

no engineers tomorrow to aid industry in meeting industrial competition which is bound to become more and more difficult. The effectiveness not only of military but also of industrial defense programs depends upon competent engineers and scientists.

We must give our support to the selective draft. It should be realized that the best mechanized equipment is useless, unless we have men who have military as well as technical knowledge, and who possess qualities of physical endurance as well as of technical skill. Even the selective draft will give us an Army of about 33 divisions as compared with 250 divisions in Germany.

#### **Special Training for National Defense**

We are in the throes of organizing an enormous program of national defense, which requires for its effectiveness large numbers of skilled workers as well as engineers who are competent in a wide range of technical services. All facilities must be mobilized to insure an adequate defense program and the needs for technical talent must be met by setting up special training programs to afford the unemployed and the poorly placed to prepare for maximum usefulness to the nation. At the same time engineering colleges must realize that their greatest contribution will come by undertaking the type of training for which they are best equipped, that is, training on the "engineering school level," rather than intensive trade courses which can ordinarily be handled more effectively by trade and secondary vocational schools. For twenty-three years the Federal Government has cooperated with the various states in the development of a nation-wide program of trade and vocational education. These schools should be allowed to train for national defense on the "less than college grade" level, while engineering schools should confine their training to the college level. By college level is meant instruction com-

parable in difficulty and prerequisites with courses included in an engineering curriculum.

To an extraordinary degree our national defense program, as well as our ability to meet industrial competition depends upon science and technology. There is already an acute shortage of technical and supervisory engineering talent in certain of the industries concerned with national defense as well as in the Army and the Navy. The airplane industry reports a definite shortage in stress analysts, test engineers and airplane power plant designers as well as draftsmen. Thousands of additional engineers are needed who are competent as designers of tools, dies, jiggs, and templates as well as in part analysis, shop layout and estimates of labor and materials. Thousands of additional inspectors are needed by the Army, Navy, and industry who have knowledge of materials, physical testing, inspection of foundry products for materials used in ordnance, x-ray inspection of welded parts, radiographic technique and other special problems. Inspectors are also needed for automotive equipment, explosives and radio equipment. Several hundred additional professional meteorologists are needed by the U. S. Weather Bureau and by the Army. The Maritime Commission, the Navy and the shipbuilding industry report substantial shortages in naval architects and marine engineers; that is particularly serious in that only three engineering schools (Massachusetts Institute of Technology, University of Michigan, and Webb Institute) offer programs of study in this field and graduate only fifty-one this year.

Besides the needs for thousands of additional engineering specialists industry is confronted with a shortage of industrial engineers and supervisors to speed up the production of equipment needed in national defense, engineers who are familiar with industrial organization, time and motion study techniques, production control, ma-



terial handling and storage, inventory, budgetary and accounting control, industrial safety, personnel administration and industrial relations. Expanded production in some of the defense industries is being accomplished by dilution and overloading the top management organization.

It is our responsibility not to interrupt our major services, to maintain during the present emergency the strongest possible programs of undergraduate and graduate study, and to increase our research efforts so that an adequate supply of capable and creative engineers is assured. In general, it is impractical to speed up our undergraduate programs of study, but recent appropriations of \$9,000,000 to the U. S. Office of Education for "training on the engineering school level" may enable engineering colleges to utilize their special facilities in the following ways:

1. Institutions which are located in large industrial centers, such as Pittsburgh, may be able to utilize their staff, equipment and classrooms for in-service training of special value in up-grading the supervisory and technical personnel of defense industries. This type of in-service training would be carried on mainly outside of working hours. In some cases industries may be interested in allowing some of the training to be given on company time.
2. Institutions which are not located in or near industrial centers may carry on certain types of in-service training on the engineering school level through extension classes. In such cases institutions may have to utilize classrooms and laboratories of public schools or of industry and have the instruction carried on by regular part-time teachers

or by special teachers assigned to industrial centers.

3. Intensive resident programs of study, varying in duration from one to eight months; most of such short-term courses should be available to those who have had the equivalent of at least the first three years of a recognized engineering school course and actual industrial or engineering experience but who lack specialized knowledge in the field in which there is now a shortage of engineers. Thus the average mechanical engineer, through a twelve or sixteen weeks' course could be prepared for employment as a marine engineer, an aeronautical engineer or for production supervision, particularly if that engineer has had considerable practical experience. In the case of commissioned officers of the Army and Navy, intensive courses of one or two months may prove helpful to them in dealing with Diesel engines, high pressure steam plants, electric communication, cryptography, metallurgy, meteorology, chemistry or explosives or similar problems which have been developing very rapidly.

No one can accurately predict what the future holds for us. Present conditions demand that science and technology operate at full speed. The engineer's initiative and inventive talents must be used most effectively. It is hoped that in-service and intensive training programs to be administered by the U. S. Office of Education on the engineering school level will prove helpful in supplying people for key positions in the rapidly expanding defense industries as well as for the Army and Navy.



## THE LOOP COURSE

Bethlehem Steel Company's Program for the Training of  
College and University Graduates

A. M. RUPKEY

*Manager of Training  
Bethlehem Steel Company*

During the early stages of steel making, the problems confronting the industry were solved largely by practical men of little academic training. As the industry grew and its problems both as to management and methods became more complex, it was recognized that a more scientific approach to its problems must be adopted. It was during this evolution that college graduates came to be considered as likely candidates for the business. Generally they were not accepted kindly by either workmen or management and the college graduate's "row was not an easy one to hoe."

Bethlehem's present program of college-graduate training had its beginning during that period, with its employment of one or two selected graduates each year during the late 1890's. They were given, on an individual basis, a training of observation and performance in various departments of the organization before entering any specific work. This came to be known as "looping." For many years the men pursuing their course of training were unofficially called "loopers." From this popular designation came the official designation, "The Loop Course."

In 1922 the plan was established whereby a group of selected graduates was recruited each year and its members began their careers under an organized system of training. The plan has been continued as a regular activity of the Company. It has been improved upon through many years of experience into its present form.

The Loop Course is open only to those graduates of the year in which the course

is held, who are seeking permanent employment. Recruiting is conducted during the first half of each year and to this end a number of institutions are visited for the purpose of interviewing interested applicants. Selections are made only after personal interview at the Home Office in Bethlehem, Pennsylvania, or at the College or University.

While no specific qualifications for entrance can be enumerated and each applicant must be considered individually it is preferred to consider men who have shown by records of college achievement that they possess some of the qualities which make for success. An outstanding record in scholarship, leadership, in extra-curricular activities, and other evidences of initiative, personality, tenacity and direction of purpose, are well-recognized omens of future accomplishment. Good health is of course a basic requirement, and a thorough physical examination must be passed.

Before each class is organized the number and kind of opportunities for placements are regulated by requisitions made by plant managers and heads of departments as a result of a general survey of their needs. Our aim is to interview and select the men to meet these requisitions.

### **Candidates Should Know Preferences in Advance**

Each candidate is, therefore, obliged at the time of the interview to decide in a general way on the type of work in which he desires to specialize, whether production, sales, mining or any of the other departments

in the Bethlehem organization. While many service and administrative departments look to these training classes to supply the talent to fill vacancies, by far the greatest demand comes from the operating divisions of the mines, quarries, and the iron and steel manufacturing plants.

In the main, graduates from technical courses are desired for these operating opportunities. Also in the case of sales work, technical graduates are desired. Men selected for other opportunities in accounting, purchasing, industrial relations, advertising, or other departments are chosen after careful consideration of the training, experience, aptitude and interest of the individual candidates.

The purpose of the loop training course is to give the new employee a comprehensive understanding of all phases of Bethlehem's activities. To the man who has indicated a desire to follow a production career but finds it difficult to determine which particular line of work or division of a steel plant he may be best fitted by personal qualifications and aptitudes to follow, this course should prove helpful and valuable. On the other hand, for those men who have decided that their interests for future training are definitely in open hearth, rolling mills or shops, or in the sales, accounting, purchasing, industrial relations, advertising, mining, or any other division, the course offers a background and an opportunity to obtain in a not-too-hasty manner a comprehensive view of the operation of a modern steel plant.

#### Main Features of Course

The loop training course for college graduates is divided into three general parts which are described in the following paragraphs. The four-week training period at Bethlehem, Pennsylvania, is taken by all members of the training class. The second phase of training, however, varies for the different loopers, depending upon whether

they are to enter the production, sales, mining or other divisions. The third part is that phase of training actually on the job in which ultimate success depends on performance, into which enters the personality, intelligence, initiative, innate ability, and determination of the individual.

The four weeks of training at Bethlehem are spent largely in the Bethlehem Plant. An extended lecture course given in the lecture room of the Main Office Building covers most of the important features of Bethlehem's plants, properties, products, operations, policies and activities. These practical lectures are given by officers of the Corporation, plant managers, division superintendents, and others, and constitute, on the whole, an intimate contact with high Corporation personnel and a variety of subjects. The following is a partial list of the subjects covered:

- General Outline of Course
- The Corporation
- Industrial and Public Relations
- The Steel Plants
- Coal and Ore Properties
- Sales
- Financial Structure
- Accounting
- Purchasing
- Traffic
- Research
- Shipbuilding
- Bethlehem Plant
- Cambria Plant
- Lackawanna Plant
- Lebanon Plant
- Maryland Plant
- Steeltown Plant
- Fabricated Steel Construction
- Diversification of Products
- Raw Materials
- Health and Accident Prevention

In addition to these lectures, the men have an opportunity to witness talking

moving pictures depicting step by step operations in the manufacture of structural steel, alloy steel, steel sheets, tin plate, wire and wire products, wire rope, and the fabrication and erection of structural steel. These pictures, together with a permanent exhibit of the various products manufactured by Bethlehem, serve to coordinate the observations to be made in the daily trips through the various departments of the Bethlehem Plant.

### Divisions Visited

During the four weeks spent in the Bethlehem Plant, the men are under the supervision of the operating superintendents and their assistants. Included in the divisions and subdivisions of the plant visited during this period are the following:



*Blast furnace and stoves at Bethlehem Steel Company's Maryland Plant.*

By-Product Coke Division	{ Coal Handling Plant Coke Batteries Exhauster House Benzol Plant Saturator House
Metallurgical Division	{ Metallurgical and Metallographic Laboratory Physical and Chemical Laboratory Sand, Mill, Tool Steel, Forge and Scrap Inspection Structural Steel, Forge Products and Foundry Observations
Blast Furnace Division	{ Stock Bins and Raw Materials Blast Furnace Tuyeres Hot Stoves Pig Casting Plant Blast Furnace Accessories and Miscellaneous
Lehigh Open Hearth and Rolling Mills Division	{ No. 3 Open Hearth Stock Yard, Charging Floor and Pit 35" Blooming Mill and 18" Con- tinuous Mill 8", 10" and 12" Mills 9" and 12" Mills
Saucon Open Hearth and Structural Mills Division	{ No. 2 Open Hearth, Complete 40" Bloomer and 28" Structural Mill 12" and 18" Mills 48" and 42" Grey Mills
Forges, Foundries and Machine Shops Division	{ Ingot Mould Foundry, Roll Foun- dry and Steel Foundry Pattern Shop Drop Forge Iron Foundry and Brass Foundry Central Tool Department
Service Division	{ Mechanical and Electrical Mainte- nance Track Repairs and Yard Depart- ment Pipe Fitting, Bricklaying, Me- chanical Repairs
Combustion Division	{ Power Houses, General Combustion Steam, Water and Air Systems
Electric Furnace Division	{ Electrical Furnaces Finishing Department Warehouse

A written report is required at the end of the trips through each division to cover in detail the observations made. These reports are read and graded and constitute one of the principal means of determining the fitness of the men in the class.

### Assignment of Students

During the course, the members of the class selected for sales and production work in steel plants, fabricating works, mines, and

other divisions are made acquainted with the opportunities which then exist in the various plants and divisions. The knowledge and experience gained through the lectures and plant assignments, with certain counsel and guidance from those in charge, should serve to locate practically all the men with a reasonable degree of confidence in positions best suited to each individual.

### **Special Training for Men Entering Steel Production**

The men originally selected for steel production are, at the conclusion of the four weeks at Bethlehem, assigned as regular employees of the steel plants located at Bethlehem, Pennsylvania; Sparrows Point, Maryland; Steelton, Pennsylvania; Lebanon, Pennsylvania; Johnstown, Pennsylvania; and Lackawanna, New York; the Pacific Coast steel plants and the various works of the Fabricated Steel Construction Division.

Each plant will then conduct a training course for the men assigned to it, similar to that employed at Bethlehem, Pennsylvania, during the first four weeks. This second training period, in addition to being educational, will enable the management to make such observations as will lead to the placement of the newly acquired graduates in positions to the best interests of the company and of the student. This is important because of the wide range of activities in a large steel plant.

### **Training for Sales**

After the men selected for training in the sales department conclude the first four-week period they will remain at the Bethlehem plant for several months studying the basic operations of the industry, from the treatment of raw materials through the basic rolling of steels and finished products of that plant.

Following this the sales loopers will begin a tour of the various Home Office product

sales divisions at Bethlehem, Pennsylvania. The individual will spend some time in each division and will have an opportunity to discuss each product with the manager of sales and his staff, to observe sales procedure, to learn terms, expressions and pricing procedure. The commercial aspects of the steel business will be studied in detail.

### **Plant Tour for Sales Division**

Upon the completion of the Home Office product sales division study, the sales loopers will be taken upon a tour of other steel plants of the Company. Here emphasis will be placed on the study of the manufacture of finished products, such as sheets, tin plate and wire, to name only a few, as all steel plant products will be included. In order to permit greater individual attention to the sales candidates, the total number is divided into small groups, which report to the various plants according to pre-arranged schedules. Their activities while at the plants are supervised by the management at the plant being visited. Written reports are required at the conclusion of each plant visit. Their reports are read and graded at the plants and then sent to the Manager of Training at Bethlehem.

Following the visits at the plants, the sales loopers will be tentatively assigned to the Home Office product sales divisions, as needed and in accordance with the indicated aptitude of the individual looper.

### **Specialized Training for Other Departments**

The second period of training for mining candidates is similar to that employed for steel production candidates, in that the men are given an opportunity to pursue an observational training course in the mines or divisions to which they are assigned. In the cases of purchasing, accounting, industrial and public relations and development and research loopers, the selected





*A group of loopers studying an open-hearth operation at the Bethlehem Plant.*

graduates pursue courses of training within these departments. Thus accounting candidates after a period in the Accounting Department in the Home Office, spend from several days to a month or more with each of the works accountants in the different steel plants, mines and shipyards.

In the Industrial and Public Relations Division, the men are trained by actual work assignments in all the various phases of the department's activities, such as advertising, compensation, safety, industrial relations, training and health. The men are given actual work assignments in the plant to become acquainted with plant operations,

personnel, employment procedure, pensions, relief, accident prevention and other industrial relations activities.

### **Records of Progress**

Progress of "loopers" on the job is carefully followed by systematic reports frequently made to the heads of the particular units in which the individuals are employed. An annual report covering each man who has pursued the Loop Course is made to the Home Office. Every effort is made to insure the success of all and the progress of men of ability has been most satisfactory.



## SENIOR PLACEMENT PROCEDURES

### Senior Placement at Lehigh University

Senior Placement procedure at Lehigh University is, like that at any other institution, a development brought about by the actual conditions to be met. The nature of the institution, its geographic location, the attitude of the faculty, the limitations of the budget, and various other factors determine to a large extent the way in which placement work must be handled. This description of the work at Lehigh is, therefore, not offered with any idea that other institutions should follow it.

College Placement Bureaus have been likened to sales departments in industry, but this analogy is distasteful when taken seriously because it savors too much of commercialism, which should be lacking when dealing with human beings. The function of Lehigh's Placement Bureau is to place the University's graduates, keeping in mind that the best interests of the institution must be safeguarded, that the industrial patrons must be well served, and that the young men to be placed shall be given the best possible start in the industrial world.

In preparing students for senior placement Lehigh presents no organized program of vocational guidance. The staff of the University gives generously of its time in helping students to discover their capabilities, but this aid is all extracurricular.

Neither is there any attempt to train seniors in interview technique. A nine-page pamphlet entitled *Senior Placement Information* is given to each senior to acquaint him with placement activities and to instruct him regarding his relation to them. Only the briefest mention is made of such points as personal appearance, courtesy to the interviewer, speaking distinctly, avoiding affectations, and other fundamentals of good personal behavior.

Prior to the arrival of interviewers the

various groups of seniors are each given an opportunity to hear a staff member discuss the subject of placement. Sometimes representatives of industry also talk to these groups. The talks are purposely made as informal as possible with plenty of opportunity for the students to ask questions.

In the fall of the year each senior is required to fill in a Senior Record card, which has been dubbed a "who's your old man card" because it contains data relative to the father's college, his line of business, and his ancestry. A small photograph of the senior is attached to this card in a space provided for it. Clipped to each card is a copy of the senior's balance sheet and a personnel rating sheet, which has been prepared either by the curriculum director or by his staff acting as a committee. This completes the data to be presented to interviewers.

The actual arrangement of an interview program is usually a simple matter, once a date has been selected and the interviewer has stated the time of his arrival and the time interval for each interview. Occasionally unusual arrangements are requested by interviewers, which are not always easy to meet but usually a way out of the difficulties can be found.

In general all interview programs at Lehigh are prepared by having the candidates report at the Placement Office on or before a stated date, to be registered for the interviews. At this time they are given all available information except the actual time of their appointments, and are told to return for scheduling on a later date which is selected for that purpose. The scheduling is done about two days before the interviews are to take place. The reason for not scheduling the interviews when candidates register for them is that consideration of the candidates, and the program as a whole, can be given between the two dates and a better program arranged. Moreover, experience

has taught that it is better to schedule a program just before it takes place.

Whenever it is necessary to select candidates for an interview program, the selections are made in consultation with department heads.

When an interviewer arrives he is given a private room in which to conduct his interviews. His schedule and a clock are placed on his desk with a stack of Senior Record Cards arranged in the order in which his candidates are to appear. If the interviewer is making his first visit, or his previous record shows that he is inclined to drag out his program, he is asked if he may be expected to follow his schedule closely, as the schedule has been prepared to reduce class-cutting to a minimum. Occasionally it is necessary to remind an interviewer that he is not keeping up with his schedule, if his doing so is interfering with other interviews or otherwise creating an impossible situation.

Even a brief article on placement work should not end without some reference to that delicate situation which arises when a senior reaches the conclusion that he wishes to be released after he has accepted an offer of employment. It would be a blessing to every college in the land if the institution which has developed a satisfactory technique for handling such cases would make it public. At least one curriculum director at Lehigh has taken a prophylactic step in the right direction. He requires each senior who attends his seminar to write a letter to an imaginary employer, trying to extricate himself from the predicament of having accepted an offer from which he wishes to be released. For four years this curriculum director, who graduates more than forty men a year, has not had a single senior who has been obliged to write such a letter to a real employer.

E. Robins Morgan,  
Director of Placement,  
Lehigh University.

### Recruiting in the Southwest

"How is Senior Recruiting by Industry handled by the largest strictly male school in the United States?" Before explaining the method used at the Agricultural and Mechanical College of Texas, it would probably be best to give a few facts about this institution in order to clarify some of the statements that will appear later on. Not only is Texas A. and M. a strictly male institution, but all students are under military discipline throughout their college career and 5,000 out of 6,500 students live in dormitories on the campus grounds. Texas A. and M. has the second largest Engineering School and the largest Agricultural School in the United States, and therefore, due to the large graduating class each year, the placing of senior students with industry upon graduation is a difficult task. "Do all graduates secure employment upon graduation?" is a common question. They do not, but a large majority are placed and the rest secure employment by fall. It must be remembered that Texas is a good distance from the so-called "industrial centers" and that there are thirty-two first class senior colleges and universities in Texas, all helping their graduates secure employment—which makes job getting for seniors very difficult, especially by the recruiting method.

The Placement Bureau at Texas A. and M. is sponsored by the Association of Former Students (alumni organization) and operates on a cooperative basis with the faculty of the College.

The program of assisting senior students secure employment upon graduation begins shortly after the first semester is under way. Personnel record blanks are distributed to the seniors by the department of the College in which the student is doing his major work. These records, when executed, are turned in to the Placement Bureau. Then printed personnel data sheets, con-

taining the student's picture and pertinent information, are prepared for those desiring them.

While the assembling of records has been going on, letters have been sent to various industries, inviting them to visit the College and interview senior students. If a company advises that one of their representatives will visit the College, printed personnel data sheets are forwarded to the company on the types of students they are interested in interviewing. In addition to knowing the type of student desired by the prospective employer, it is practically essential for the Placement Bureau to know at what time the representative will arrive, the time the interviews should start, number of students to be interviewed, and the period to be allowed for each student. Having this information in advance enables the Placement Bureau to schedule the interviews so there will be no time wasted after the representative

arrives at the College. The selection of students to be interviewed is done by the departments of the College who prepare the type of men the company is interested in. This method of selecting students is used for several reasons and is felt to be the most feasible for Texas A. and M. The staff members of the various College departments know the senior students, their interests and qualifications, better than the Placement Bureau and also have a more complete knowledge of the individual industries and type of men needed. In this manner both students and industry receive the greatest possible assistance from the College.

When the representative arrives, he is given a private room to conduct the interviews, is furnished with a schedule of the interviews, which gives the student's name, course and time of appointment. In addition, the student's personnel record is on hand, arranged in the order of the interview.



*Air view of the 4,000 acre Texas A & M College campus with the Administration Building in the foreground.*

*Howard Berry*

Composite faculty ratings and scholastic records are available for the interviewer, if he wishes to see them. These are not given to him before the interviews, but afterwards. Also, after the interviews are finished the staff members of the departments are available for conferences with the representative, if he so desires.

As to the length of each interview period, this is determined largely by the number of students to be interviewed and whether or not the representative has addressed all the students in a general assembly, before the interviews, about the policies of his company. If an assembly is held, the interview periods are usually shorter, lasting about 10 minutes. On the whole, the average period for each interview is 15 minutes.

The foregoing covers briefly how arrangements are handled when a representative of industry visits the College. However, only a small percentage of the seniors secure employment by this procedure. Most positions are secured by the seniors arranging for interviews at offices of the various companies in Texas cities. In the spring, one will find a large number of seniors away from the College on week-ends, interviewing possible employers.

One other method which is used to place seniors is the sending of personnel data sheets, by courses in booklet form, to possible employers. By doing this, the employer can have a fairly good idea of the type of men available in a particular field. Often this method secures for a senior a job that might not have developed had not the employer received the booklet.

Getting a job upon graduation has now come to the point of where it might be termed on a professional basis and more and more colleges and universities in the Southwest are establishing centralized placement bureaus. Industry will always need young college graduates and each year finds industry, educational institutions and students

working closer together for the benefit of all concerned.

Lucian M. Morgan,  
Director of Placement,  
Agricultural and Mechanical  
College of Texas.

#### **Student Recruiting at Massachusetts Institute of Technology**

Senior and graduate student recruiting at the Massachusetts Institute of Technology is an annual program entailing the appraisal and placement of from seven to eight hundred men, of which approximately 58% are candidates for Bachelor's degrees, 30-35% for Master's degrees, and the balance Doctors of Science or Philosophy. These candidates are distributed in seventeen courses of which eleven are engineering and six in the sciences. Because of the very broad coverage, it has been found necessary to have in addition to a central placement bureau, one or more placement officers operating in each of the seventeen departments previously referred to.

Questions of policy are handled by a Faculty Committee appointed by the President, of which the Placement Officer is Chairman. This Committee not only formulates policy, but also makes recommendations to the President of those individuals to be appointed as Departmental Placement Officers. These Departmental Placement Officers are selected for their interest in placement and their close contact with candidates for degrees during their last year at Technology. Some departments have made a practice of having a registration officer pick up a class in the sophomore year and carry it through graduation. For these reasons the placement of seniors and graduate students is handled by different individuals. This set-up makes it possible to obtain a placement officer with maximum knowledge of the men involved.

Each fall at registration seniors and candi-



dates for advanced degrees are given two copies of qualification records which are filled out by the individuals and returned to their Departmental Placement Officers. One copy is kept in the department and the other sent to the Placement Office. The Placement Office qualification records are used by an interviewer to guide his interview.

The Placement Bureau schedules and conducts interviews with business representatives. The Placement Bureau transmits to the various departments specifications given by these interviewers, and then schedules the appointments. Frequently where an interviewer is interested in men from one department only, the interviews are held in the department instead of in the Placement Bureau.

For a good many years confidential ratings covering personality, native ability, judgment and common sense, and so forth, were made out by Departmental Placement Officers or by other members of the Faculty and included in a man's qualification record. Four years of experience in interviewing graduates and comparing them with these ratings led to the abolition of the confidential rating system. It seemed that more harm was done by tying a permanent label on an adolescent than any good accomplished in attempting to rate him at this stage in his career. Industrial interviewers wishing detailed information about degree candidates are referred back to Departmental Place-

ment Officers, after the interviews, for further discussion of the candidates.

N. McL. Sage,  
Placement Officer,  
Massachusetts Institute of Technology

### Procedure for Recruiting at the University of Colorado

The location of the University of Colorado presents several unique problems for its Placement Bureau with regard to placement in fields other than teaching. The University is a comparatively large institution of 4,500 students, but it is located in the Rocky Mountain region where there are few large industrial firms to absorb the graduates of the College of Engineering and the School of Business.

Although a few major firms have visited the campus over a period of years to recruit students, most eastern firms have not traveled as far west as Colorado for employees. The major problem of the Placement Bureau is to contact industrial organizations and encourage them to interview graduates of Colorado.

This problem has been approached from several angles. Through correspondence many firms have learned of the size of the University and the fields for which it prepares students. Letters have emphasized the fact that it is only an over-night trip (14 hours) by train from Chicago to Boulder.

Personal data sheets including a picture,

Perhaps there is some branch of our business which appeals to you as a life career—either in this country or abroad. We require a limited number of qualified young men each year. The Director of your University Placement Service has information on file about our Company. Consult him; he will be glad to assist you.

## SOCONY-VACUUM OIL COMPANY, INC.

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personal information, education, experience, academic rank, student activities, preferred fields of work, and references, have been organized and copies of these data sheets have been sent on request to personnel managers for their consideration. In some cases, personal data sheet booklets concerning certain groups of seniors (e. g. chemical engineers) have been made up and sent to industrial firms.

A mailing list of firms has been developed and is constantly expanded. Announcements from the Placement Bureau are sent to these firms at least once a year.

Probably the most effective means of arranging interviews for graduates has been through the University of Colorado excursion train, which takes a group of seniors, mostly from the School of Business and the College of Engineering, to some eastern industrial center each year during spring vacation. The trip is primarily an educational tour to inspect manufacturing and business firms in operation, but placement has also become an important factor. Each year the director of the Placement Bureau leaves a week in advance of the students to follow-up correspondence sent out earlier and to encourage meetings with the students while they are in a more convenient center. Many firms which are unable to send representatives to Colorado are in a position to interview students during this inspection trip.

In Colorado, the director visits every city school system in the state and the major industrial firms at least once a year. He discusses the various offerings of the University and encourages the employers to take

advantage of the services of the Placement Bureau. In addition, faculty members and placement officials attend as many business and professional conventions as possible in order that they may become better acquainted with business and professional leaders. Many of these leaders are invited to participate in the various career conferences, job conferences, and other guidance activities on the campus. This practice has been found to be mutually beneficial to students, employers, and the University.

When an employer visits the campus, every service possible is arranged for him. Personal data sheets together with transcripts are made available. Recommendations from previous employers, as well as statements from professors, are accessible. After the employer has examined these materials, he often confers with the staff of the Placement Bureau concerning the people whose data sheets he has seen. From these various sources of information, the employer selects those students whom he would like to interview and the Placement Bureau makes the necessary arrangements. After the interviews, any additional information desired is made available to answer questions that may have arisen during the interview.

Whenever possible, faculty members of the departments in which the employer is interested and representatives of the Placement Bureau entertain the guest at the Faculty Club and take him through the college in which he is interested.

Willis O. Underwood,  
Director of Placement,  
University of Colorado.

## OPPORTUNITIES AND REQUIREMENTS IN THE FIELD OF DISTRIBUTION†

HERBERT W. HESS

*Professor of Marketing, Wharton School,  
University of Pennsylvania*

The field of distribution is one which offers unusual responsibilities to young men possessing personality, initiative, and a knowledge of the fundamental sciences operating in the fields of merchandising, advertising and salesmanship. It has become almost trite to say that business evolution is forcing us from a production society into one that is consumption-minded.

This being true, it also follows, as in any new field, that opportunities for rewards and wealth are to be found. In an economic society, emphasis of which was that of production, getting the consumer to consume was somewhat spasmodic and often wastefully experimental. But with our increased knowledge of human nature, and a recognition of the kind of functions necessary to get people to consume, our university graduates are in greater demand than ever.

So important has the selling angle become in its various phases that many concerns have organized classes for beginners. In these classes, the student is shown how the fundamentals which he has presumably mastered are applied to the business in question.

The contribution which university-trained men are able to make in this field is becoming increasingly professional. As already indicated, as we learn more about the structure of the individual, gleaned through the humanistic sciences, business makes greater



*Dr. Hess*

progress as it develops its policies and establishes sales techniques in conformity with these concepts.

Distributive processes are dynamic in character. They relate not only to the maintenance of present markets, but are under competitive pressure constantly to enlarge the market. Moreover, new goods and services are constantly coming on the market, which necessitate sales strategy and technique to establish themselves as profit-making organizations.

Goods themselves are in constant change as they incorporate new materials, scientific ideas or style factors into their structure.

Thus every business, at every moment, is under pressure through research to establish potential markets at lowest costs consistent with profits. Production is studied in relation to demand and capital supplied which supports both production and distribution.

Having established the potential market, channels of trade or the flow of goods to the ultimate consumer becomes a problem of real consequence. Advertising and salesmanship, each with its technique, is organized to work against the inertia and resistance of people to buy the goods in question. Basically, selling is keeping the principle of initiative alive in our use of goods.

In getting goods from the producer to the ultimate consumer, many functions and

† This article is based on a previous discussion by Dr. Hess, but has been expanded to include a section on "Distribution Psychology in Relation to Evolutionary Pressure." The earlier treatment of this subject aroused so much interest throughout the country that we are glad to include this expanded discussion at this time.

Editor.

specialized human activities are necessary. A review of the activities and kinds of positions follows:

*Distributive Groups*

The manufacturer

The wholesaler

The retailer as an independent or chain, department store or mail order house

*Functional Activities Incorporated as Distinct Positions in Each of the Above*

Marketing research

Merchandising

Advertising

Salesmanship

Sales management

It should be noted, in passing, that in many business organizations the above functions are correlated by the Vice-President of Sales.

At a glance it is seen that a young man wishing to enter the field of distribution is under compulsion to select the particular distributive group which he likes and in which he feels he can be most successful. *But once he decides upon the group, he must also decide upon the particular phase of the selling function in which he desires to specialize.*

In addition to the above specific groups, opportunities for positions distributive in nature are to be found in foreign trade and trade associations.

Having indicated the distributive structure which incorporates the different groups controlling the flow of goods from production to final consumption, let us briefly discuss the psychology of selecting a business in relation to specific goods being sold, with their implied inherent distributive functions.

It has been my observation that men tend to prefer one kind of business rather than another. For instance, there are those who prefer that kind of interest which applies directly to the human factor as in insurance. Young men of this group are dominated by

conviction that in selling insurance they are rendering a service of inestimable value to human beings. They are at their best when trying to get the other person to see to it that his interests are protected within his income against the misfortunes of life's happenings.

Then, there are those who like to handle a mechanical product like the automobile. But even here you have a breaking-up into two parts by way of preference. Some men more engineer-minded would rather sell trucks for commercial use than to sell an automobile to the consumer. Likewise, in the sale of automobiles to the consumer, there is a division of interests and functions. The man selling a used car differs considerably in type from those selling new cars. I cite these instances to show the variables at work wherein a prospective employee in the field of distribution is under compulsion to answer a great number of questions regarding himself before selecting the kind of business and position in which he is likely to prove most successful.

In passing, it should be recognized that food and its distribution has its peculiar field of effort in relation to sales opportunities. Clothing necessitates an entirely different persuasion and technique. Housing and real estate constitute another kind of appeal. Or, again, luxury goods compel a different kind of distributive set-up and sales appeal to make a profit than does the selling of utilitarian goods.

Regardless of the kind of goods or particular distributive phase a young man selects, let us analyse the specific positions found in every phase of distribution, and define the essentials necessary for success in each.

### Sales Management

Sales management means that a man has the ability to execute house policies through the men on his sales staff. The presumption is that these policies result in increased sales

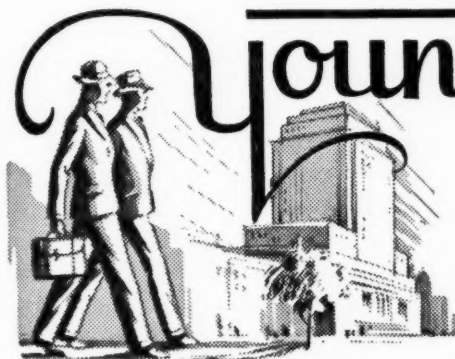
and profits consistent with the potential market. Once accepting the policies, sales management is under compulsion to develop such techniques as will afford each salesman an equipment sufficient in kind to sell his quota. The duties to which he is directly or indirectly bound are:

- appraisal of the ability of each salesman
- education of the men as to house policies
- adjustment of each salesman to his territory
- education of the men in personality requirements
- constant control of the men in the field
- conferences for general instruction and inspiration
- appraisal of sales in relation to costs and profits
- maintaining morale and rewarding ability consistent with the success of individual salesmen

- cooperation with credit department, complaint department and administration in relation to fundamental cost facts
- ability to plan for the future

To accomplish this program, it is readily seen that a sales manager usually comes up from the field of actual selling. In his daily calls the salesman becomes familiar with the environmental and physical conditions fostering or inhibiting sales and types of prospects as to education, economic status, competition and potential business. His knowledge and daily contacts give a clue to the kind of research necessary to enable him to be more successful in his territory.

The successful salesman is always in demand. Moreover, if in addition to persuasive sales appeal he shows executive ability, he can hope for real advancement. Many men at the head of business today



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have followed the route of salesman, sales manager, vice-president of sales to the position of president. Here, in reality, the race is to the strong. The incomes vary but the rewards are classifiable in the higher brackets. From \$5,000 to \$12,000 is a norm within the possibilities of those gifted in this kind of work.

### Salesmanship

The requirements here are: (a) a thorough knowledge of your product in all its ramifications; (b) personality of the kind that can meet and adjust itself to the variations and vagaries of prospects; (c) the capacity to acquire specific economic traits indispensable in breaking down resistances or overcoming inertia. These are self-confidence, earnestness, tact, honesty, persistence and enthusiasm. To those of us who have studied in this field, there is recognition of the fact that a definite system of training and procedure makes possible the development of a personality capable of getting results in human appeal, and thus increasing the volume and turnover of goods. Rewards in this field are also high. Where commissions prevail, men in certain businesses get into the class between \$3,000 and \$12,000.

In passing let me cite an instance showing the variables at work in this field. A certain salesman in a large corporation was a phenomenal closer of sales. He was employed to help all the salesmen on the staff to close the sales. The sales manager died. The closer was given his position. Did he succeed? Not at all. He was a failure, so they put him back at closing. But, as a closer, his earnings were said at the time to be \$12,000 a year.

### Advertising

Advertising agencies constitute highly specialized business organizations serving all other kinds of businesses. The primary

agency function is (a) research pertaining to every phase of the article or product to be sold, (b) appraisal of costs in relation to channels of trade, (c) analysis of media, (d) writing copy, (e) art work and illustrations, (f) display, and (g) cooperation with the sales staff of the business in question in an effort to synchronize the advertising and sales department as to policy and effort.

The advertising departments of industries represents a field of opportunity. Very often individual corporations have advertising departments which cooperate with their agencies.

In the advertising field there are also positions selling space for magazines and newspapers. Trade papers offer the same opportunity.

Higher positions in the advertising field require organizing and executive ability. A man in this position must show capacity to create a program of sales procedure for a product in keeping with current thinking and economic conditions and a knowledge of the psychology both of group and individual appeal. He must also possess abundance of character, foresight and insight to overcome the resistance of prospects to new ideas. It is also necessary constantly to stimulate appreciation and to establish techniques to execute the policies determined upon.

The sale of advertising space for different media as billboards, radio broadcasting, direct mail, etc., offers opportunities to men who like to work within highly specialized limits.

By way of observation, I have known many young men to be selected for a position humble in nature, but with the expectation that if the young man showed ability he would one day be promoted to a position of major importance. Of these, there was a group who succeeded in reaching a certain point of rather high attainment. Beyond this point, strive as they would, they could not rise. I only cite this to emphasize the



fact that advertising is a creative field and is a constant challenge to greater insight and ability. It offers unlimited opportunities to those who are profit-minded and creative. In order to succeed, the question is do you have the ability, patience, studiousness, economic sense and character to cooperate with others in dealing with so fluid a condition as the mind and the desire impulses of human beings in compelling the sale of goods?

The spirit of the day is expressed by the idea "getting into the swing." I have pointed out the great number of variables to be considered in an effort to secure the kind of position which will lead to individual success.

Generally speaking, to succeed in this field you must adjust yourself to the human factors involved. Swing in at that point where your own abilities are such that they can meet the responsibilities and requirements of a particular position. Ability shown at any point inevitably leads to higher places. The turnover of men in distribution is high because comparatively few possess characteristics which enable them to endure constant disappointments and rebuffs. Or, again, they lack a certain quality of mind capable of diagnosing the problems at hand supplemented by a creative faculty and technique which would increase sales profitably.

I have had young men in my classes who started with humble positions in this field. They have risen to high places of power and influence. Personality, health, energy and flexibility, creativeness and a genuine economic sense for values in relation to profits—these constitute the requisites for complete mastery in the field of distribution. The question of any young man starting in this field is—Do I have confidence in my own creative ability? If initiative is backed by adequate knowledge, there is bound to be a career ahead.

### Distribution Psychology in Relation to Evolutionary Pressure

We are passing today through an epoch characterized as an intellectual revolution. Orthodox ways of doing things are coming under close scrutiny. Mr. and Mrs. Consumer have grown exceedingly critical of the merits of goods put on the market. Our inventive genius is developing all kinds of new materials and inventions where each is actually contributory as a new entity implying a future culture in its own right, or materials which can be substituted for others at lower prices. Our cities find people flocking to the suburbs so as to get better houses, or to escape taxes. In the meantime the central sections of the cities are slowly deteriorating. Taxes are rising. Our distributive channels are being changed not only in relation to chain stores, but also independent stores. The concept of "co-operatives" is appearing more insistently than ever on the horizon of our thinking.

There are those who feel, when a sufficiently large number of these newer entities fostering new things and new ways of doing things show a certain interdependency in new and more enticing pictures or patterns, that another culture will have struck its rhythm. This advent presages a new wealth in the making. In other words, prosperity will be upon us. An intellectual revolution implies breaking away from old ways and methods as we attempt to give substance and character to the new. We have not yet initiated the new; but we seem to be headed in that direction.

Such a world cannot come into being with its own peculiarly integrated business technique without men possessing initiative, courage and vision. The technique of consumption, the day into which every evidence points we are now passing, is essentially different in nature from our prevailing "production-minded" psychology. To keep

the wheels of industry operating at levels fostering maximum turnover, and lowest costs and prices, also means the expansion of the desires, needs and wants of human beings.

Thus the technique of future maximum wealth applies immediately to that of maximum consumption. The groups through which evolutionary processes are to work in the future are those who are distribution-minded. If young men at the life period of greatest flexibility and integration can think through the issues of today as stated above, they cannot but formulate a philosophy which is challenging them to prepare to meet the dominant issues of a consumption-minded society.

As I see it, to be distribution-minded is to develop a philosophy and technique of consumption fostering both increased sales and profits. As a result of the division of labor, we have become interdependent. Our mass production system fails unless the technique of sales is related to the maximum satisfaction of wholesome desires, needs and wants. Such a technique implies recognition of the constitution of ourselves individually and collectively in terms of our ever-changing desires, needs and wants.

Conceiving business as a dynamic and evolutionary process it represents two kinds of activities: one consists in the inventive genius of men bringing goods to the market by mass means of production processes. These goods, in constant use, specifically and collectively, imply better adjustment to the environment in which we live. The cultural implication of each product or article finds itself under compulsion to integrate with other goods fostering new conditions, thus bringing a new type of culture into being.

The second activity with which business is engaged is that of so organizing that the commercial economic structure makes possible the orderly and just consumption of goods. Thus we are under compulsion to adhere to the correlated evolutionary pro-

cesses involving production, finance and distribution.

As intimated, evolutionary pressure is demanding distribution-minded executives and administrators. They have the task to build business around the structure of the individual in relation to man's ever-changing desires, needs and wants. Consumption is thus seen to be dynamic in nature, compelling the rising generation to think in terms of the intangible aspects of human motivations in relation to production and financial functions.

Evolutionary pressure is also forcing recognition of the fact that we are under compulsion to integrate our knowledge in as great a variety of patterns as possible, so as to give continuity and profits to our business organization.

The statement is often made that all of our frontiers have been encompassed. Nonsense! The genius of production in relation to universal consumption involving food, clothing and shelter has scarcely begun. Within the realm of the human spirit, business is striving to develop a distribution technique, whereby man's surroundings may be such as to foster normal growth and happiness. This picture is within the mind of man struggling to extend his knowledge through research and the creation of business functions to sustain each generation at higher living levels.

To fulfill the vision implications of distribution and to reap rewards commensurate with courageousness and faith, the young man who starts anywhere in any distributive function can hope to find his future place according to his capacity. The important thing is that he is thinking and breathing within the realm of distribution. This aspect compels recognition of those scientific, intangible values which must be sustained administratively, each with its appropriate function and technique. Thus, for distribution-minded young men, there are new worlds in the making.

## VOCATIONAL PLANNING IN THE LIBERAL ARTS COLLEGE

WENDELL S. DYSINGER

*Dean, MacMurray College*

The college president has often announced that his college teaches men not to make a living but to make a life. If this contrast be a valid one, most of us would support his ideal. The distinction, however, implies a definition of personality which is subject to serious challenge.

Is the making of a living really to be contrasted with the making of a life? It would appear rather that the two are intimately intertwined. One's occupation is the economic foundation for the other phases of life. There is a clear loss in most lives when economic resources fall below definable margins. Cultural interests must be curtailed, and family opportunities must be limited. A Thoreau may be independent of the economic needs of most men, but even he is dependent upon an organized economy for the "few implements" which he used.

One's occupation, further, has a profound effect upon the development of his personality. The farmer looks at the hillside as fertile soil; the artist sees it as a painting; the real estate dealer may find a new subdivision. The marks of one's occupation are all too clear, and the thought habits of the vocational group are securely fastened upon him.

A generation which still hears the arguments about the economic man ought to find it clear enough that a part of the process of making a life is in the activities associated with making a living. There is no real contrast here. The liberal arts college cannot rely upon such a slogan for justification of any neglect of the vocational phase of life. Liberal arts education cannot be identified



*Dean Dysinger*

with the trade school; neither can this important aspect of life be ignored in the process of "making a life."

In practice, liberal arts colleges have offered vocational work. Teachers are generally trained; preparatory work is offered for the professions; business and other courses are often added. Such general practices accept the vocational as a legitimate phase of education in the

liberal arts college.

Vocational planning may be more important for many college students than vocational training, however. During his years on the campus, the student should decide his occupation and relate his training to his choice. This is something other than concentration upon his trade or profession. The student has the leisure for careful consideration; he is relieved of the immediate necessity of placement for the sake of income; he is in a community where he may be able to get more help in making a wise choice than he will get at any other period of his life. The college can hardly refuse to regard vocational planning as an important part of student experience.

There is no magic short-cut to a wise vocational plan. The palmists and the phrenologists have all failed to find a ready answer to the problem. The starving fortune teller does not intend to be amusing when he advises another on the methods of earning a good living. A wise vocational choice for the undecided youth involves detailed study of ability, interests, and special abilities. There is no "one and only" conclusion, but there are real aids available to young

people in the choice of a vocation. These aids should find a home on the campus.

### Records

The cumulative record is the file of all data which is serviceable in educational and vocational guidance. This file contains details from the pre-college years, home background, high school academic work, extra-curricular activities, personal ratings, letters of recommendation, etc. These items are often of practical value in counselling, for the college student is the developing high school youth. Many social and extra-curricular activities of this earlier period are relevant to vocational choices. The occupation of the father may be related to the choice of the son, and the son who chooses to follow his father's vocation is making a choice on background that is important. The cumulative record contains much information of this kind.

These records are significantly enriched by freshman orientation tests. Well chosen tests measure with a known reliability certain of the abilities and achievements of students. There is no justification for any sentimental attitude toward test results; the "I.Q." is not the numerical summary of the individual. Neither is there justification for the attitudes of those who would reject these tests as useless, for example, because of the known margin of error. Not infrequently, those who reject standardized tests because of known fallibility rely confidently upon unstandardized tests or even upon personal impressions which contain errors that are both greater in extent and unanalyzed in nature. Educators increasingly use standardized tests with discrimination, and are subjecting them to critical analysis.

Use of a mental test is typical, and the administration of two such tests is advisable in order to reduce the margin of error. A test of reading skills and vocabulary adds significantly to the information. Achieve-

ment tests in other areas, social studies, natural science, mathematics, etc., are important supplements to high school grades. A personality inventory may be added to this battery.

The Sophomore testing program contributes valuable information at the close of the second college year. The results of the general training during these two years are important for later educational plans and for vocational choices. The cumulative record which holds such information is rich in possibilities both for the college and for the student.

The cumulative record also contains many items of information about the college experience. Extra-curricular activities may be of primary importance for some students. Ratings by teachers and others, anecdotal records, summaries of interviews, records of work for self-help, academic summaries are all informing.

It is equally important that the data be used. If it is scattered over the campus in an unorganized way, these possibilities are not likely to be realized in practice. If students have no opportunity to have the data interpreted to them individually, other possibilities are prone to be lost. This report to the individual student of the results of his tests is an important educational resource. Most students respond to this opportunity. It is laborious for personnel departments, but the worth of such interpretations in interview is great. Such an interview logically introduces the questions of scholastic habits, plans for majors, vocational interests, etc. This is no mere "pep talk" to induce conformance to college regulations, but is a phase of the self education of the student which can be highly instructive.

### Interpretation

The systematic interpretation of such a pattern of results is equally valuable to the



administration. Opportunity is given for more adequate insight into the potentialities of the student. Distinctions are drawn between the superficial and the underlying truth. The quick responsiveness of the student with dancing eyes may most readily be distinguished from high levels of abstract intelligence through such an examination of the cumulative record. The claimed interest may be analyzed. It may represent response to some dramatic moment in a vocation, or it may be a systematic interest on which educational and vocational plans might well be based. The difference between pleasant conformance to teachers' desires and a real drive toward achievement is important in the understanding of a student.

Such distinctions are similar to the medical distinction between symptoms and disease. Laziness offers an illustration in this field. The comment is frequently heard that this student is lazy. There are few statements which are more profoundly uninformative. Laziness may mean low levels of energy, poor health, emotional conflicts, the distractions of campus social life, some love affair, lack of motivation, etc. The old-fashioned doctor who looked at the tongue and felt the pulse was thorough in comparison with those who conclude their search for understanding of a student when they have diagnosed "laziness." The word may have real meaning which is not reducible to such concepts as are suggested, but this superficial symptom should not be given independent status too hastily.

Vocational planning at the college level builds upon all of this information, and adds such other data as seems useful for the purpose. Vocational interests may be measured; occupations may be studied; special abilities may be measured; conferences may be held with men in the vocations under study; vocational trips may be taken; best of all, vocational tryouts may be arranged. The college with cumulative records and a satis-

factory program of testing can readily add such systematic information to aid in vocational choices and in placement.

It is not necessary in order to make a wise vocational choice to take a battery of tests. Many men have made their choices without benefit of such an analysis of abilities and interests. A considerable number of these choices have been happy, although one must not forget the unhappy ones. The results of a vocational analysis are not so far removed from common sense that reasonable choices are hopeless without these aids. Serious complications have developed in the area, however, with the increasing complexity of industrial life and the corresponding specialization in school and in work.

A program of educational and vocational guidance is no longer in the experimental stage, but has been adopted on many campuses of the nation. Educational and vocational guidance is clinical in nature, and neither is likely to become an exact science for a long time to come. It has, nevertheless, justified itself, particularly when the resources of any alternative suggestion are explored. These important decisions of young men and women, especially when they are difficult to make or involved with indecision, will best be made in the light of information that is gathered through the personnel functions of the modern college.

Sometimes the problem is not difficult. One young man came to a personnel office with the question: should he take graduate work in metallurgy? His record showed a background in a steel-worker's home, limited financial resources, excellent academic work at the high school level, excellent academic work at the college level particularly in the sciences, extensive experience in work in the steel mill, a long-time plan to become a metallurgist, some experience in metallurgy through factory laboratories. His orientation tests were altogether consistent with



his class-room results. The problem was the financial one. Before he made the extreme effort necessary to reach his goal, he wanted assurance that the chances of success were good. Such assurance could be given to him. He had enough ability that he would doubtless succeed in other areas as well, but metallurgy probably represented the field where the highest levels of his ability matched his most intense interests. Efforts to aid in the financial problem were made, and a satisfying conclusion was reached.

Another student came for advice regarding a business venture which she was undertaking. She had been unable to find satisfactory employment, and had used her time in minor business ventures. She had made a little money with some chemical concoction that she called a beauty aid, and her amusement with a marriage bureau had actually paid minor profit. Now there was a new idea, but it required more capital than she could afford to lose. Promises of secrecy were given and have been kept so well that the writer has forgotten the nature of this venture. Here was an interesting girl! What could the personnel office suggest?

The record was consulted, and it proved to be rich in resources. Academic work had been superior. Test records were even better, ranking her in the highest one percent in important measurements. In spite of her minor successes as entrepreneur, she was definitely retiring, introvertive in most relationships. She did not want to continue her financial career, but she must face the problem of placement.

The suggestion of graduate work was made. There was every reason to encourage this step. Investigation proved that some financial resources might be available from the immediate family. Another relative, when informed about the prospects for outstanding success, quickly consented to supply the balance. The new business venture never materialized, nor did the fortune

which it might (and might not) have brought. Her record in graduate work has been highly satisfactory.

Another study brought other complications. A young woman had come to college attracted by one of the able members of the faculty. She came with a superior high school record, planning to major in the field taught by her favorite professor. She was forced to work for immediate income, but the number of hours did not exceed twenty-two per week. Her teacher soon concluded that she was a girl of modest abilities, and the resulting grades in her major field brought deep discouragement. She concluded that anybody could get good grades in high school, but in college over-confident youngsters found their real levels. Her tests, however, showed outstanding ability and achievement in several areas, and she was so informed in a test report. There was some suggestion that she was not majoring in her field of greatest strength, and after some thought she decided to change. The encouragement of her new situation brought immediate results. Honor grades were reported consistently for her last two years in college, and a part of the credit for the better result must be assigned to the educational value of the tests and test reports.

These illustrations should by no means leave the impression that the confused student need only see the personnel office in order to live happily ever after. There are test reports which seem to accomplish nothing, and there are mistakes which the counsellor makes. An easy error is to assume to decide the problems rather than to bring the student data and interpretations for his consideration and decision. Some students begin the series of conferences, but are not attracted for a long enough time that any conclusion can be reached. That there are some successes which would probably not be achieved in any other way is sufficient.

An illustration of failure may nevertheless

balance the record. A young man with very superior test records began in college to duplicate his poor high school performance. The opportunity to discuss his situation was greedily accepted by the personnel office. The contrast was made very plain between the possibility for him and the actual record. He was interested. The chief point in the background concerned the step-father whose influence had long been most unsatisfactory. There were, however, adequate financial resources, and the student concluded that he wanted to study medicine, his real father's profession. He worked hard for a time, but soon was relapsing into scholastic indifference and alcoholic enthusiasm. He had a way of getting into trouble at every step. In the top brackets of ability, he failed in most of his college subjects. He tried again at a new school, but the results were similar. His level of aspiration was high, and his potential abilities supported these plans. He had every service that a personnel office could devise, but the result was negative. He holds a modest, blind-alley job today which supplies his immediate needs.

Such a program of educational and vo-

cational guidance has been largely the contribution of the great universities to education. Administrators overwhelmed by the size of their tasks have developed counselling programs, devised and used tests, and in other ways provided personnel services for students. The liberal arts college builds its personnel program largely upon the foundation laid by these educators.

The great opportunity, nevertheless, in personnel work is given to the smaller college. Students are known personally in a way quite impossible in large institutions. At its worst, such acquaintance becomes pettiness; at its best, it is a valuable educational resource. Test results add the objective factor. Educational and vocational planning furnish much of the dynamic for effort. This combination of the personal and the objective, when related to cultural and vocational goals, has much to contribute to higher education. When the modern personnel point of view and the liberal arts college are united, there is reason to hope for much for both. And the student may learn more thoroughly about the art of making a life.

## PHILADELPHIA ELECTRIC COMPANY

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*Live Electrically & Save*

# OCCUPATIONAL ORIENTATION IN AN URBAN UNIVERSITY

ARCHIE MACINNES PALMER

*President, University of Chattanooga*

A major responsibility of a higher educational institution is to provide its students with opportunity for mental and spiritual growth and, in so doing, to guide them in their preparation for a fuller and richer life. That responsibility is not discharged if graduates, when they leave the academic halls, are confronted with economic uncertainty and find themselves unprepared to meet the challenge of making a living as well as living a life.

No college or university can guarantee its former students economic security, either immediate or ultimate; but, as part of the educational process, it can make them aware of the social and economic vagaries of life and send them forth better equipped to adjust themselves to changing conditions. Through an introduction to the employment opportunities in the various fields of life work and through guidance in the selection of a career, the college or university can materially assist its students in making this adjustment and in reducing what might otherwise result in unavoidable economic uncertainty. This is particularly true in the case of the urban university because of the composition of its student body and its location in the midst of a varied business and industrial area.

In an effort to assist its students in selecting their life work and thereby in preparing themselves for the fullest enjoyment of life, the University of Chattanooga two years



*Dr. Palmer*

ago introduced a program of occupational orientation designed to acquaint them with the employment opportunities in various fields of life work, with particular reference to those available in the Chattanooga area.

An urban university located in the heart of a rapidly growing section of the Tennessee Valley, the University of Chattanooga draws its students from all sections of

Tennessee and from many other states. The greater majority, however, come from the immediately surrounding area. Examination of the alumni records reveals that fully ninety percent of the graduates and former students make their homes in or near Chattanooga and take an active part in its business and professional life. Therefore, if they are to utilize their individual abilities and their educational preparation to the greatest possible extent, they need information about the present and future occupational possibilities of the area.

In order to provide this information in as authoritative form as possible, a one-semester elective course in occupational orientation was developed as the basic unit in the program. This course, open to all students in the University and given in the spring semester, is organized on a four-year plan, with the work so arranged that it will cover the entire field of study during a college generation. Any student may, by participating in the work throughout his

four years in college, gain a comprehensive knowledge of the employment opportunities in the Chattanooga area.

The interest of local business and professional leaders has been enlisted in the project, and many graduates of the University who occupy positions of prominence in the community welcome this opportunity to serve the young people now in college. Through the Chattanooga Chamber of Commerce and the presidents of its affiliated business and professional organizations, speakers and consultants qualified to participate in the program have been designated to appear before the group. A carefully selected library of books, magazines and other publications on vocations and vocational guidance has been established and is constantly being added to, and test material is provided to assist the students in their choice of a life work.

At each meeting of the group an outstanding business or professional leader in his field presents, in a twenty to thirty minute talk, a general picture of the occupational opportunities in his own field, with particular reference to those available in the Chattanooga area. Discussion and specific questions from the floor follow. Each speaker includes in his talk a definition of the field of work under consideration that day, its extent and divisions, its social implications, its future, both general and in Chattanooga, its attractive and unattractive features, employment and advancement possibilities, especially for college graduates, general qualifications for success, and the professional training required or desired.

Written reports are made by the students on those fields in which they are particularly interested. In preparing such reports the students are urged to visit business houses and industrial plants, to consult with executives in those organizations, and to assemble data on specific job opportunities and occupational trends. Individual aptitudes,

qualifications and vocational interests are studied through the use of self-analyses, standard vocational interest tests and other material specially designed for the course, and each student has at least one personal conference with the coordinator of the course during the year.

The program for the first year provided a general background of the various fields of work. The following broad fields were presented and the occupational opportunities in those fields studied: natural resources, manufacturing and processing, distribution and sales, retail merchandising, transportation, finance, public and private medicine, public utilities, government, public relations, social service and education.

These particular fields were presented the first year because of their bearings upon the fundamental aspects of local business and professional life. They were selected after a study of the occupational distribution of the alumni of the University of Chattanooga and a survey of the present employment opportunities and anticipated trends in the Chattanooga area. The local office of the Tennessee State Employment Service, the Chattanooga Chamber of Commerce and various business executives assisted in that survey, and the findings were made available to all.

As an introduction to the program the students were given at the first meeting, a preview of social, cultural and economic life in Chattanooga and the immediate environs. Strategically situated on the Tennessee River in the heart of an agricultural and mining section, with more than four hundred factories turning out upwards of fifteen hundred different products, Chattanooga possesses a great diversity of occupational opportunity. The further development of public power, industry, all forms of transportation, the tourist trade and the recreational facilities of the newly created lakes in the Tennessee Valley greatly





*Administration Building,  
University of Chattanooga*

enhance the employment possibilities and increase the need for qualified workers in many fields.

During the second year of the program the occupational opportunities in more specific fields were studied. After a further analysis of the local situation instruction was given in how to choose one's life work and how to apply for a job. Then, following the same general method of presentation as during the first year, speakers and consultants appeared before the group and consideration was given to such fields as accountancy, insurance, scientific work, salesmanship, teaching and school administration, engineering, and law. Special consideration was given to fields open to women.

It is planned to continue the study of these more specific fields of work during the next two years, possibly with some consideration of the more common jobs within the major

fields represented in this area. In addition, detailed analyses will be made this year of local employment needs and of training requirements, both educational and technical, as well as historical studies of business and industrial development, with emphasis on the apparent trends. It is anticipated that such analyses and studies will be invaluable not only to the students making them but also to the agencies within the community which are concerned with the direction of its growth.

The cooperation and interest of local and state officials, business and professional leaders, and others invited to participate in the project have been most heartening. The president of the University of Chattanooga serves as coordinator of the program and conducts certain units in the course. Among those who have also participated are the State Commissioner of Conservation, State Employment Service managers, educational and industrial leaders, Chamber of Commerce and social agency executives, prominent lawyers, doctors, scientists, engineers, insurance men, salesmen, accountants, bankers and business men.

Student response has also been most gratifying. More than one hundred enrolled the first year, eighty the second and the prospects for the coming year are even more encouraging, with an increasing interest in the program and appreciation of its value. Although a student may receive credit toward graduation for but one semester of the course, he may continue to attend in subsequent years as an auditor, and many do so.

From the educational angle the course is helpful in determining curriculum needs and in providing adequate student guidance and academic advisory service. The more successful placement of graduates is another by-product of the program. The steadily growing vocational library is available to all students attending the University and,



through inter-library loan, to local residents for personal use and professional study. Then, too, those participating in the program as speakers and consultants have an excellent opportunity to discover suitable employee material among the students at the University, thereby fitting in their own recruitment activities.

Our experience with this program of

occupational orientation at the University of Chattanooga has revealed many further possibilities and has clearly indicated the need for such a program, especially in an urban university. And in the present national emergency the adequate guidance of American youth and particularly of those in colleges and universities, is of vital importance.

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WHAT is next for me? High school and university students are asking that question. They want a full and rich life. They turn toward schools of medicine, law, engineering, business, nursing, social science, and other vocations as a means to such life.

The University of Pittsburgh, created when Pittsburgh was a log cabin village, is one of the greatest centers of the earth for such opportunities.

*Write to the Registrar*

**UNIVERSITY OF PITTSBURGH**

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## NATIONAL YOUTH ADMINISTRATION PROGRAM AT TEMPLE UNIVERSITY

JOHN BARR

*Director, Industrial Service Bureau, Temple University*

In 1935, when the National Youth Administration was established by Executive Order, as a part of the Works Projects Administration, our country was in the midst of a depression, and going through a period of unemployment that made almost impossible the procurement of part-time jobs for students. Millions of employable men and women were regularly seeking jobs through the normal channels of employment, but with little success in most cases, other than a promise by the employment manager or personnel director that their applications would be placed on the contingent list for future consideration. Because of this condition, our students, and those in charge of student placement at Temple University, were constantly reminded by those in charge of employment in all kinds of business establishments, that they could promise very little hope of jobs for our students until former employees who were on their contingent and waiting lists, were taken care of. Another factor that helped to reduce very materially the demand for student help was the knowledge by the employer of the availability for immediate full or part-time employment vast armies of experienced and inexperienced people, who were willing to take almost any type of employment at low salaries rather than be idle. Obviously, this over-supply of employable people reduced to almost nil the requests we in normal times receive for student help, and brought about a condition that only a program such as the N. Y. A. could overcome.



Mr. Barr

Temple University was founded by a great philanthropist, Dr. Russell Conwell, who believed in the doctrine of education for all who were willing to work with both mind and hands. Because of the nature of its founding, the University naturally attracted to its halls of learning young men and women who were ambitious to obtain higher education that would lift them out of the lower levels of

human existence. The type of students attending Temple has not changed, to any great extent, during the years since its founding, and we list among our student body thousands of the finest young minds of the country who come from homes where the family income is in the lower brackets. Obviously, the parents of these young, ambitious, serious-minded people are not in a position to give much financial assistance, and a program such as the N. Y. A. is without question of material help in the solution of their financial problems.

For these reasons, Temple University was glad of the opportunity to participate in this great national program, making possible the placement in part-time jobs of many students who would have found it impossible to enter college, or having entered, would have been compelled to withdraw because of the lack of funds. After four and one-half years of the operation of this program we are thoroughly convinced of its merits, and further believe that of all the agencies set up by the Federal Government to break down and conquer the depression, and help solve the financial problems of thousands of

students throughout the United States, none has been more successful than N. Y. A. It has helped youth to go further into the field of higher education, and it has been of material benefit to under-endowed colleges and universities. At institutions where the lack of funds makes impossible the assignment of sufficient help to members of the faculty and department heads, the assistance received through the N. Y. A. has been inestimable. Without the assistance of student help much research could not be carried on; much needed clerical and stenographic help could not be provided; and off-campus activities in boys' clubs, recreation centers, free libraries, and other institutions carrying on a free service for the benefit of the under-privileged, would be curtailed. The foregoing are but a few of the many worthwhile undertakings that are being carried on through this splendid program.

The allotment received by Temple University for the current academic year is \$75,465.00. This appropriation has made it possible for us to place 559 students in part-time jobs, so arranged that the work does not in any way interfere with their class schedule. Ten hundred twenty-eight (1,028) applications were filed this year, but unfortunately we cannot place all who are worthy and undoubtedly very much in need of financial assistance, because our allotment takes care of only a definite number.

The administration of the program, insofar as it applies directly to locating jobs and selecting students who are most in need of financial assistance, is being carried on, without charge to the National Youth Administration, by our Placement Bureau, and every single dollar allotted to Temple goes directly for student aid. We have attempted to be most careful in our selection of eligible students, and have compelled each applicant to file a statement outlining his need for financial assistance. Furthermore, we have requested at least two references, other than

members of his immediate family or our faculty, who can vouch for the financial need of the student.

Students are assigned to duties of high educational and social value in nearly all departments of the University, and in many of the social and recreational centers of the city. All of this work is supervised by heads of departments and in nearly every case the amount and quality of work performed is most satisfactory.

### Scope

Projects of value both to the student and department head or faculty member are carried out in all schools. In the Department of Psychology students are doing statistical work in connection with research or guidance projects. Under the direction of the head of the Department of Public Relations, students are assigned to carry on a Home Town News Service, which consists of gathering news concerning students and members of the faculty, and submitting the news items to their home town newspapers. Information of this type is always interesting to the folk back home, and the experience derived from the work is most valuable to the student in journalism.

In the Language Department, a study is being conducted to compile the results of examinations over a period of years. Students who are majoring in music education are being trained under the direction of the head of the department to transcribe and rearrange band music under the supervision of the Director of the Band and Orchestra. This work improves their efficiency and helps to better prepare them for future work in the field of music education, and reduces the detail work of the Director of the Band.

In the chemical laboratory, students are doing special research work by making solutions; purifying and rectifying chemicals; rewriting notes on chemical work for student presentation. Through this work they are

gaining practical experience in their field of specialization. In the Dental School, students assist in the Roentgenology Laboratory and Pedodontia Clinic.

In the Department of Buildings and Grounds, many are employed as assistants to the janitorial staff; gardeners, engineers, etc. Although this work may not be of much educational value to the students, it does teach them to do manual work and it affords an outlet for many who have not found a field of specialization, and would be of little assistance to faculty or department heads. However, this work is of benefit to the community and to the University, because it helps improve the general condition of the buildings and grounds, which in turn increases property value in the neighborhood and the general appearance of the campus. Much of this work could not be done by the University because of lack of funds.

Work of very definite benefit to the student and without doubt of great value to the community and to society in general is carried on at the boys' clubs, social service agencies, recreation centers, and like institutions offering a free service to the public.

The Lighthouse Boys' Club, an organization supported entirely by voluntary contributions, has been assigned two medical seniors who give medical examinations to boys to determine whether they are fit physically to participate in athletic activities. These boys range in age from 8 to 18 years. The examination report is given to the parents telling them of the physical defects and suggesting necessary corrections. The work is of benefit to the students be-

cause it gives them an opportunity to do field work in the profession which they plan to follow. The Lighthouse through this aid is able to do much good work that could not possibly be carried on because of lack of funds and the community is benefited greatly through aid given to the underprivileged.

The House of Industry employs young women who are students in our Department of Early Childhood Education. Their work is to assist with play hours and be generally helpful in the Free Kindergarten, operated for the benefit of mothers who must find a place for their children while they work to help support the home.

Graduate students are assigned in most cases to heads of departments who are better able to outline work that is of value to the student. Many worthwhile projects are being carried on in compiling bibliography; abstracting material from books and articles; research in chemistry, physics, English, sociology, and in the field of education. This work is of such a nature that it could not be handled by an undergraduate.

I could go on and on, along these lines, giving a more thoroughly comprehensive picture of the value of N. Y. A. aid to our students and faculty, but the above brief outline of the type and nature of the work, I believe, gives a true picture of what our students are doing in return for compensation received. For these young aspiring people the National Youth Administration's educational project has been of especial significance.

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## PRESIDENT'S STATEMENT

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**Study and research into placement procedures  
and allied topics suggested as a major function of the Association.**

**Thirty-nine states represented.**

It seems important to call the attention of our readers again to the fact that the Pennsylvania Association of School and College Placement came into existence as a result of an emergency program in the winter of 1939-40, known as the Pennsylvania Job Mobilization Program and sponsored by the Governor of the State. As part of that program, the chairman of the original Committee on Educational Cooperation designated certain topics as the basis of long-range study, and these topics which, at the outset, covered the major items brought before the Committee on Educational Cooperation, were later referred to the new Association.

It will be noted, therefore, that the Association has been established on the basis of study of numerous phases of the placement problem, and with the idea of serving as a clearing point through its journal, *SCHOOL AND COLLEGE PLACEMENT*, for the results of these studies. The journal also serves as a medium for the discussion of important topics relating to placement.

The immediate task of the Association, therefore, is to set up the necessary committees through which these studies may be undertaken, and this is being done in the Executive Offices as rapidly as possible. The Administrative Committee will be greatly assisted if members of the Association will report to the Executive Offices studies now in progress which bear in any way upon placement, since it is of the utmost importance to avoid duplication of effort. An imposing array of problems has been assigned to the Association by the original Committee on Educational Cooperation, and hence it is a fundamental feature of the

Association's work in its initial stages to try to determine to what extent any of its objectives are now being fulfilled by other existing agencies. Members and friends of the Association can thus render a service by notifying the Executive Offices of any studies or researches which are now underway into those phases of placement assigned to the Association for its own investigation.

The way in which the Association came into existence, and the fact that its program, at least in general outlines, was formulated before it was established, together constitute a unique background for the organization. The Association itself was actually formed by forces entirely outside of itself, but nevertheless it now has complete freedom to modify or to expand the original objectives and to chart new courses for its activity. On this phase of its work, also, correspondence is invited from members and friends of the Association.

It will doubtless be manifest that a major task at the outset has been to formulate a specific program for widening the membership of the Association, and also for laying a strong foundation for the financial needs of the organization. The Association has no subsidy through endowment of any kind, and must therefore depend upon membership dues, and subscriptions to, and advertising in, its journal. Strong committees have been formed for these two tasks, and splendid progress has been made in the brief interval since the Association was established on July 1, 1940. Thus far membership in the Association, including associate memberships and subscriptions to its journal, has extended into thirty-nine states, and the entire program has thereby taken on

national aspects which will doubtless be broadened under the able leadership of Mr. John Barr, General Chairman of the Committee on Institutional, Regular and Associate Membership, and of Mr. A. M. Boyd, General Chairman of the Committee on Contributing and Sustaining Membership.

Special attention is called to the fact that the original responses from the presidents of colleges and universities throughout Pennsylvania to the request of Dr. Thomas S. Gates for an indication of their interest in this program, were almost unanimously favorable, and it is believed, therefore, that the Association will increasingly meet a definite need for coordinated study of the many-sided problem of School and College Placement. However, to attain its objectives in the highest degree will require cooperative assistance on the part of many people who are interested in this particular phase of the educational program of our schools and colleges.

The major functions of the Pennsylvania Association of School and College Placement for its first year's work, as approved by the Administrative Committee in November, 1940, will be found on page 56 of this issue. The effort has been made to include in this list the underlying functions of the Association, but it is the desire of the Executive Offices that these functions be viewed in a

preliminary way at this time. Based upon a sound fiscal policy, and expected noteworthy developments on the part of its two membership committees, the Association is steadily expanding, and its objectives and its program will undoubtedly be greatly widened as its facilities and resources are strengthened. We can only express profound appreciation for the earnest efforts of so many people, as well as for the interest displayed in many directions, which together have materially stabilized this new movement thus far in its first year.

A word is perhaps in place regarding the plan of the Administrative Committee to maintain in the Executive Offices of the Association an information service for answering queries on the part of members and non-members alike. Correspondence is therefore invited concerning any of the aspects of the Association's work, and as far as possible such correspondence will be answered direct from our offices, or a suitable source will be suggested where the desired information may likely be secured.

Grateful recognition is here recorded for the close cooperation of the individual members of the Editorial Board of the Journal, of the Executive Board of the Association, and of the Administrative Committee, which functions between the meetings of the Executive Board.

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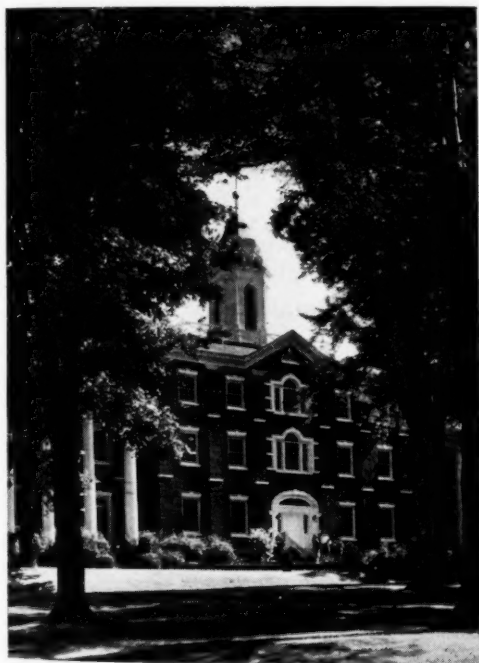
## ASSOCIATION NEWS AND NOTES

### Allegheny College

The responsibility of placing all graduating men at Allegheny College has been assumed by the office of the Dean of Men. During the second semester of last year, and through the summer, this was a major project. Those students who were going on to advanced work were advised and assisted in securing admission and scholarships to graduate and professional schools. Contacts were developed outside for those who planned to work. As a result, a report in September of this year showed that only six men in the class had either not been located, or had failed to report. These six cases are being followed up.

### Boy Scouts of America

The Division of Personnel, Boy Scouts of America, 2 Park Avenue, New York City,



*Bentley Hall, first building of Allegheny College at Meadville, Pennsylvania, is considered one of the outstanding examples of early American architecture extant. It now houses the Administrative Offices.*

has available two pamphlets, "The Profession of the Scout Executive," and "Appointments to the Professional Service of Scouting." These are free of charge to all interested in this field of work. In addition, there is available a mimeographed statement suggesting desirable college courses for those young men preparing themselves for this profession.

### Bucknell University

A Vocational Week was held at Bucknell University during the latter part of November. The Committee in charge of arrangements was composed of the Director of the Placement Bureau, and faculty members and students representing the different departments of the college. Books describing and interpreting different occupations, and books on how to get a job were on special display for the examination of interested persons. Mr. Cameron Beck, former Public Relations Director of the New York Stock Exchange and now with the School of Business Practice and Speech at Rockefeller Center, spoke at the weekly Chapel on "Choosing Your Life Vocation." In the afternoon, Mr. Beck met with various groups and individuals for discussion of vocational problems.

### Drexel Institute of Technology

Willis T. Spivey, Director of the Drexel Evening Diploma School, has been appointed Regional Adviser of Eastern Pennsylvania, South Jersey and the State of Delaware, in the Government program of training students for jobs in the National Defense Program. Technical courses will be given throughout the country under an appropriation of \$9,000,000 recently made by Congress, through which some 30,000 students will be given special defense training.

Mr. Spivey, who has been granted leave of absence from his duties at Drexel for the duration of the Defense Program, is a

graduate of Cornell University. He has been Director of the Drexel Evening School for twenty-two years. As Regional Adviser he will co-ordinate the activities of the colleges and the needs of industry.

#### **Moravian College for Women**

The College announces an extension of its Guidance Program for students through a member of its faculty, Dr. Hilde Kramer. Dr. Kramer came to the college last Spring from Vienna via Edinburgh, Scotland. She holds doctor's degrees in medicine and philosophy from the University of Vienna and was associated with both Adler and Freud. She teaches Psycho-hygiene at the college, and her services are also available to women in the community through the Bethlehem Y. W. C. A.

Through the Dean's office a thorough file on vocational information from graduates of the Moravian College for Women is kept up-to-date. This information is used in guiding the formation of a Vocational Guidance Conference which is conducted by the students under the auspices of the Student Government Association in February.

#### **Northwestern University**

Ferdinand G. Seulberger, from 1931 to 1938 co-ordinator at Drexel Institute of Technology, in Philadelphia, is now Professor of Co-operative Education and Director of Industrial Relations in the Technological Institute of Northwestern University, Evanston, Illinois. Professor Seulberger's appointment was announced in February, when he was assistant educational director of the Lithographic Technical Foundation, New York City.

#### **Pennsylvania School for the Deaf**

A year ago, the Pennsylvania School for the Deaf had about 150 men and women available for immediate employment. On

October 15th, 1940, about two-thirds of this number had found jobs, leaving about 50 former students still in need of placement in the less skilled branches of woodworking, printing, tailoring, shoe repairing and auto mechanics.

#### **The Pennsylvania State College**

Dean H. P. Hammond, of the School of Engineering, Pennsylvania State College, reports "... we continue to receive numerous requests for graduates, which we cannot fill. These come in greatest number from the aeronautical and machine tool industries, but not from those industries exclusively. ... Never, in my recollection of thirty years, has the demand for engineering graduates been so active; not even during the great industrial expansion of 1918."

The School of Agriculture of the Pennsylvania State College has also witnessed a notable demand for its graduates, according to Dean S. W. Fletcher. Horticulture, landscape architecture, dairy husbandry and agricultural engineering graduates have all been employed. Since 1922, only one graduate of the course in Poultry husbandry has been unemployed. All but five of the fifty rural education graduates obtained teaching positions.

#### **Pennsylvania State Employment Service**

H. Raymond Mason, Director of the Pennsylvania State Employment Service, announces the development in the Erie office of an employment counseling and testing service, which will serve as a pattern for offices throughout the state. While it is expected that the major proportion of applicants requiring employment counseling to aid them in their occupational adjustment will be inexperienced workers, also served will be older workers who are experiencing difficulty in job seeking because they have passed beyond the normal hiring age of



many business establishments; who have lost their skill or confidence to fill the job in which they are experienced because of a long period of unemployment, or because of some other reason; who have been displaced by technological change; or who present problems involving adjustment to a specific job.

Operating in conjunction with this service is a testing program which includes performance tests and aptitude tests developed by the United States Employment Service. Follow-up studies are being made of the success on the job of those persons to whom tests were administered prior to placement.

#### Sam Houston State Teachers College

During the period from May 1st to October 1st, 1940, three hundred forty-four placements were made at Sam Houston State Teachers College. This represents more than 82% of the registered candidates. In some fields, such as Band, Physical Education (Men), Primary Education, Public School Music, and Administration, every candidate was placed. The percentage of placement follows:

Art.....	75%
Band.....	100%
B B A.....	98%
Elementary.....	75%
English.....	73%
Home Economics.....	83%
Industrial Arts.....	96%
Mathematics.....	62%
Physical Education (Men).....	100%
Physical Education (Women).....	73%
Primary Education.....	100%
Public School Music.....	100%
Science.....	66%
Social Science.....	77%
School Administration.....	100%
Vocational Agricultural.....	80%

To effect these 344 placements, the Department of Public Service, through which Teacher Placement is handled, sent out 1,394 personal data booklets. Fifteen percent of the placements were in fields other than teaching.

#### Society for Promotion of Engineering Education

The meeting of the Allegheny section of the Society for Promotion of Engineering Education was held at Carnegie Institute of Technology on October 25 and 26. Emphasis was placed on coordination of industry with engineering study. Excellent papers were presented on the subject by Walther Mathesius, Vice President of the United States Steel Corporation, and by Douglas F. Miner, George Westinghouse Professor of Engineering at Carnegie Institute of Technology. The latter paper dealt with the practical cooperation of the Westinghouse Company with the Carnegie Institute of Technology in a definite program.

#### University of Pennsylvania

The Service Bureau of the School of Education, University of Pennsylvania will again give particular attention this year to furthering the work of the Philadelphia Suburban High School Principals' Association in its program for the unadjusted high school youth. Organized in 1939, the Bureau is under the direction of Dr. E. D. Grizzell of the University.

#### University of Pittsburgh

George M. Walton is now assisting in the Part-time Work Division of the Placement Bureau of the University of Pittsburgh. Mr. Walton, who is Assistant Director, handles student employment and any part-time work for full-time, undergraduate day students at the University.

Interviewers are already scheduling their visits for the recruiting of February and June graduates. Indications are that the greatest emphasis will be placed on the employment of engineering graduates.

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## LETTERS

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To the Editor:

I was interested to learn . . . of the organization of the Pennsylvania Association of School and College Placement. It seems to me that this Association can be of definite assistance to business and government in the present emergency.

*George R. Beach, Jr., Manager,  
Personnel Division, Service Department,  
E. I. duPont de Nemours & Company, Inc.*

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To the Editor:

. . . The copy of Volume 1, Number 1, of SCHOOL AND COLLEGE PLACEMENT has arrived . . . it strikes one as a most effective inauguration of a publication.

*Paul H. Musser,  
Administrative Vice-President,  
University of Pennsylvania.*

To the Editor:

I have read the first number of SCHOOL AND COLLEGE PLACEMENT with much interest, and congratulate you on its quality. I liked your "President's Statement." The problem before the Association is exceedingly nebulous and the objectives of the magazine should clear, in their general outlines at least, as experience grows. It might be that specific inquiries should be undertaken, if they could be financed, to obtain concrete information on which students and counselors can base judgments.

*C. C. Williams, President,  
Lehigh University.*

To the Editor:

My copy of SCHOOL AND COLLEGE PLACEMENT reached me Saturday and I was delighted with this first issue.

*J. O. Keller, Assistant to the President,  
in Charge of Extension,  
The Pennsylvania State College.*

To the Editor:

Please accept my compliments on the October issue of SCHOOL AND COLLEGE PLACEMENT. We are looking forward to the next number.

*W. E. Lowry, Director,  
Department of Public Service,  
Sam Houston State Teachers College.*

To the Editor:

. . . The first issue is certainly a credit to the organization.

*E. H. van Delden,  
Assistant Professor of Management,  
New York University.*

To the Editor:

I have just read Mr. Boynton's very excellent article on "Recruiting for Industry" which appeared in the first issue of SCHOOL AND COLLEGE PLACEMENT. I have long thought that a journal in the field of placement work specifically was much needed in order to afford an opportunity for the exchange of pertinent information and individual points of view.

*Ralph R. Wolf, Jr.,  
Assistant Director,  
Department of Personnel Study,  
Yale University.*

To the Editor:

Dr. A. A. Potter, Dean of our Schools of Engineering, has just passed on to me a copy of your first number. I was very much interested in reading this publication, and want to compliment you on the very fine setup which you have.

The two articles on Recruiting for Industry, written by Mr. P. W. Boynton and Professor F. W. Slantz, were exceptionally good, and the latter article particularly has brought out some of the pertinent points in connection with industrial recruiting of college graduates.

*David L. Arm,  
Acting Director of Personnel,  
Purdue University.*



## A GOOD DOCTOR KNOWS HUMAN NATURE

We all know some doctor who has far more than his prescriptions to recommend him. With his stethoscope, he brings into our homes his experienced understanding that people are human, and that humans need help at most turns in the road through life.

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Philadelphia

Major Functions of the  
**PENNSYLVANIA ASSOCIATION OF SCHOOL  
AND COLLEGE PLACEMENT**

as approved by the  
**ADMINISTRATIVE COMMITTEE of the ASSOCIATION**

1. An effort to promote study and research in the various fields assigned to the Association by the original Committee on Educational Cooperation.
2. Publication of a quarterly journal and the use of this journal as a medium for distributing articles relating to the objectives of the Association, committee reports, and notes on the progress of the Association's work.
3. To carry out a comprehensive program for increasing the Institutional and Regular Members of the Association.
4. To carry out a comprehensive program for increasing the Contributing and Sustaining Members of the Association.
5. The appointment of as many of the committees authorized by the Executive Board as possible, and the promotion of their work.
6. To make a systematic effort to arouse interest of the schools, colleges and business and industrial firms in the work of the Association.
7. To formulate and carry out a program for building up a cash reserve in the Treasurer's Office during the first year, so as to stabilize the Association's work in future years.
8. The maintenance of an information service to answer the queries of members and non-members alike.
9. The publication of special leaflets relating to placement in its various aspects, if information of sufficient importance becomes available to warrant such a plan, and if funds permit.
10. Publication of special articles relating to graduates who are doing outstanding work in chosen professions or fields of specialization.

**NOTE**

The foregoing list of functions of the Association seems to cover the scope of its work as implied by the original Committee on Educational Cooperation when the Association was established.

Because of the large amount of work required during the first year in organizing the Association and in building up its membership, together with the extremely scattered nature of this membership, the Administrative Committee has decided to use the journal, special leaflets, and progress reports for the distribution of information relating to the Association, and not to consider the question of holding meetings during the first year. The Administrative Committee has recommended, however, that a Committee on Meetings be appointed in due course, with the suggestion that it give careful thought to a possible plan of certain meetings beginning with a later year of the Association's work after the membership and the details of organization have developed sufficiently to make discussion of such a plan practical.



## BOOK REVIEWS AND DIGESTS

**OPPORTUNITIES IN GOVERNMENT EMPLOYMENT**, L. J. O'Rourke, Garden City Publishing Company, New York, 1940, 307 pp., \$1.00.

Dr. O'Rourke, who is director of research for the United States Civil Service Commission, has been associated for more than twenty years with agencies engaged in testing and placing candidates for public employment.

His latest book covers the whole field of government service, presenting opportunities for employment in all of the departments of Federal, state and local government. The Federal service is emphasized, not only because of the author's long affiliation with it, but also because of the greater pervasiveness of its merit system.

While the job opportunities covered run the whole gamut of school and college preparation, from those requiring not even a high school education to those demanding post-graduate training in universities, the method of describing the various jobs and the style are on the mid-high school level. The author evidently looks upon his role as that of friendly counselor, talking over vocational matters with a puzzled adolescent, telling him where a young person of his aptitudes and inclinations might fit in the civil service, and giving him minute and specific directions as to how to go about the business of making applications and taking examinations.

There are several reasons why this book should be in every high school in the country: (1) it describes the public service functionally, rather than by branches, levels, or constitutional departments, so that the young aspirant can explore the possibilities of following his vocational bent without making separate canvasses of municipal, state and national government levels; (2) the prospects for psychic and

monetary income are presented fairly, without the deprecation usually found in superficial high school books on government and without the ballyhoo associated with railway-mail-course advertisements; and (3) it will very ably implement a better *rapport* between recruiting agents in our government and vocational guides in our high schools, of which there is an urgent need. —JAMES C. CHARLESWORTH, *Educational Associate, Institute of Local and State Government, University of Pennsylvania.*

**STRATEGY OF JOB FINDING**, Lyons and Marlin, Prentice-Hall, Inc., New York, 1940, 408 pp., \$4.00

An extremely factual and inspirational book for any job seeker. For one engaged in work whose constant problem is the attempt to make students and alumni crystallize their thoughts in the matter of their qualifications, aptitudes and interest for given fields of endeavor, this book is indeed a confirmation. There are those who might criticize its presentation of the obvious in the many details of job seeking, but the authors assume, and they are entirely correct, that most applicants in their first experience must be led by the hand and on this basis there is no step overlooked nor any fact too infinitesimal to bring before the candidate.

It must not be construed, however, that the principles underlying the book are to be applied solely to the groping novice, for in fact, the experienced campaigner in his search for greater opportunities will find a technique outlined that has withstood the actual test of many varying experiences in all types of business and industry.

*The Strategy of Job Finding* opens on the present vocational scene, and from that point hastens into the varied problems of self-appraisal beginning with the personal balance sheet of assets and liabilities, thence

to business and job analysis, and finally to the matching of personal qualifications with job requirements. Interesting pages are devoted to the components of job finding such as letters of reference, application and introduction, the written presentation, personality, advertising, the daily schedule for job seeking, and finally, the problems of conduct and method for the personal interview.

Always of keen interest in any treatment of this subject are the personal experiences and case histories introduced. Our present book has many of these, all of which are intelligently woven into the lines so as best to clarify points or offer contrasts to conditions described. Indeed, all through the book examples and illustrations are given which tend to make all the more desirable the addition of this book to the personnel and employment library.

*The Strategy of Job Finding* stands recommended for all men and women faced with problems of job finding, or hiring, and if carefully read and analyzed, it should prove its worth many times.

**JOBS FOR TOMORROW**, *Weekly News Review*, Civic Education Service, Washington, 5c each.

Under the title "Jobs for Tomorrow," the *Weekly News Review*, a publication for students of current history, each week offers a brief account of some occupation or profession. These comments, although very short, give an exceptionally clear picture of the present status of opportunity in the various fields treated. Secretarial work, chemical engineering, nursing, electrical work, veterinary medicine, the legal profession, airplane piloting, and mechanical trades have been noted in recent issues.

Each article gives an estimate of the present employment prospects as measured by the recent balance of supply and demand, trends in earnings, the general educational

requirements and the cost of such training, the various approaches to actual employment and references to further reading.

Special note is made of the increasing demand for male stenographers and secretaries and the opportunities for the future which such positions may provide. On the other hand, the legal profession is pointed out as being able to absorb only those who succeed in reaching the top ranks in scholarship and personal gifts.

Copies of the various issues in which these "Jobs for Tomorrow" are noted are available at five cents a copy, through the *Weekly News Review*, 744 Jackson Place, Washington, D. C. The outlines, and the dates they appeared, follow:

Machine Trades, *September 9, 1940.*  
Airplane Pilot, *September 16, 1940.*  
Buyer, *September 23, 1940.*  
Secretarial Work, *September 30, 1940.*  
Mechanics, *October 7, 1940.*  
Nursing, *October 14, 1940.*  
Electrical Work, *October 21, 1940.*  
Veterinary Medicine, *November 4, 1940.*  
Chemical Engineering, *November 18, 1940.*  
Legal Profession, *November 25, 1940.*  
Printing Trades, *December 2, 1940.*

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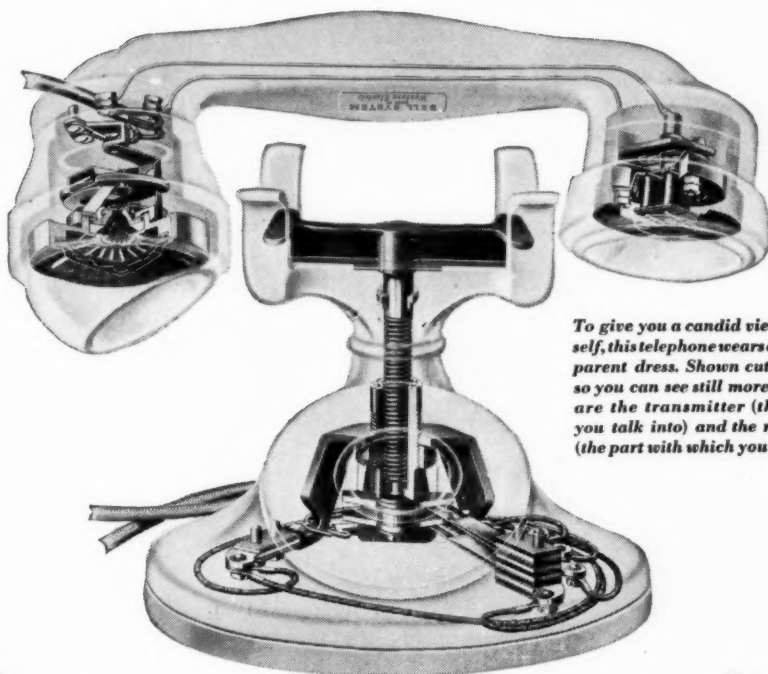
#### Books Received

**SIX WAYS TO GET A JOB**, Paul W. Boynton, Harper & Brothers, New York, 1940, 147 pp. and ix, \$1.50.

Written out of twenty years' experience in employment work, this book sets forth clearly the tested techniques of finding a job and shows why job-getting is the result of a six-sided sales campaign.

Beginners in search of their first position, or older men and women desiring a change of job or re-employment will find this book invaluable. Says the author: "The sug-

(Continued on page 62)



*To give you a candid view of itself, this telephone wears a transparent dress. Shown cut away, so you can see still more detail, are the transmitter (the part you talk into) and the receiver (the part with which you listen).*

*Now look* **INSIDE** *your telephone*



*"You'd never guess this one. It says our telephone has 248 parts."*

*"And think how seldom it gets out of order!"*

To Americans, telephoning is second nature. They do it 94,000,000 times a day. To them, who thus conquer space and time, telephones are a commonplace — these familiar instruments, gateways to 21,000,000 others in the homes and offices of this land.

Making Bell telephones so well that you take them for granted, is the achievement of Western Electric craftsmen. It's what they have learned in doing that job for 58 years. It's the way they make cable, switchboards, vacuum tubes, all the 43,000 designs of apparatus for the Bell System. The excellence of their workmanship thus plays a part in your daily life.

**Western Electric** . . . is back of your  
Bell Telephone service

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## CONTRIBUTOR'S PAGE

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A *Progress Report* of the Philadelphia Advisory Council on Vocational Education for National Defense, was prepared by **Dr. Henry Butler Allen**, Chairman of the Council, and Secretary and Director of the Franklin Institute of the State of Pennsylvania (page 2).

Dr. Allen was educated at Amherst College, and Columbia University. From 1912 to 1935, allowing three years out for Army service from 1917 to 1920, he was engaged in the metal industry; as United States Examiner, Iron and Steel, Port of New York, 1912-13; Metallurgical Engineer, Henry Disston and Sons, Inc., 1913-17 and 1922-26; and Chief Metallurgist with the same company, 1926 to 1935. He was Vice-president of the Dodge Steel Company from 1920 to 1922. Since 1935 he has been Administrative Secretary and Director of the Franklin Institute in Philadelphia.

On February 15, 1938, Temple University awarded him the degree, Doctor of Science, and on May 19, 1938, he was awarded Chevalier, Legion d'honneur. Dr. Allen is Vice-president of the American Association of Museums, Vice-president of the Franco-American Institute of Science, Associate Trustee, Board of Graduate Education and Research, University of Pennsylvania, and Second Vice-President and Trustee of the International Benjamin Franklin Society. His article in this issue is on page 9.

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**Howard M. Bell**, author, lecturer, teacher, is widely experienced in both the analysis and administration of programs for young people. Beginning in 1924 as a field agent for the National Child Labor Committee, and continuing through recent years with the American Youth Commission, he has studied the problems of young people in the United States and abroad and has been influential in developing programs capable of meeting their needs.

Dr. Bell contributes widely to periodicals on topics related to education, guidance, recreation, and employment. He is the author of two particularly significant publications of the American Youth Commission: *Youth Tell Their Story*, which reports a comprehensive survey of conditions and attitudes of 13,500 young people in Maryland; and *Matching Youth and Jobs*, a report on a survey and demonstration of occupational adjustment by the Commission in cooperation with the U. S. Employment Service.

*Occupational Adjustment and Total Defense*, which appears on page 3 of this issue, is Dr. Bell's contribution.

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*Opportunities and Requirements in the Field of Distribution*, on page 31 is the work of **Dr. Herbert W. Hess**, Professor of Marketing in the Wharton School of Finance and Commerce, University of Pennsylvania.

In addition to his teaching activities, Dr. Hess is Advisory editor of THE PLAN, of the Middle Atlantic Lumbermen's Association, business counselor of sales for several corporations, and lecturer on problems pertaining to distribution. He was appointed first chairman of the Award Committee on Scientific Distribution of the Philadelphia Sales Managers' Association. His writings include *Creative Salesmanship*, *Productive Advertising*, and *Advertising—Its Economics, Philosophy and Technique*.

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**Mr. E. Robins Morgan**, who is Director of Placement at Lehigh University, is himself a graduate of that institution, Class of 1903. After several years in the machine shop and drafting room, following his graduation, he entered the field of sales engineering for a large company manufacturing hoisting and conveying equipment. Thereafter, with the exception of three years



spent in research work, he was connected solely with sales work. He has held his present appointment at Lehigh University since 1935. Mr. Morgan's account of senior placement activities at Lehigh is on page 25.

The account of senior placement procedures at Texas A. and M. College, which appears on page 26 of this issue was prepared by **Lucian M. Morgan**.

Mr. Morgan is himself a graduate of Texas A. and M., having received his B. S. degree in 1935, with a major in marketing and finance. For two years he worked in East Texas for the U. S. Department of Agriculture on the AAA program, and then returned to the College as a graduate assistant in the Department of Agricultural Economics.

In 1938 he received his M. S. degree in

agricultural economics, and then spent some time with the Federal Crop Insurance Corporation of the United States Department of Agriculture, as a Junior Field Officer located in Amarillo, Texas.

Mr. Morgan returned to Texas A. and M. when the Placement Bureau was established in November 1939, and has held his present position since that time. He is a First Lieutenant in the Field Artillery Reserves.

**Andrey Abraham Potter** came to the United States at the age of fifteen. He was graduated from Massachusetts Institute of Technology in 1903, and was awarded the honorary degree of Doctor of Engineering by Kansas State College in 1925. In 1936 Northeastern University granted him the honorary degree of Doctor of Science.

For two years after his graduation from

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1825-1940

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PHILADELPHIA

Massachusetts Institute of Technology, Dr. Potter was with General Electric Company at Schenectady. He then joined the teaching staff of Kansas State College as Assistant Professor of Mechanical Engineering, and in 1913 became Dean of Engineering and Director of the Engineering Experiment Station. Since 1920 he has been at Purdue University as Dean of the Schools of Engineering and Director of the Engineering Experiment Station and of Engineering Extension Service. For over twenty-seven years he has served as a consulting power engineer.

Dr. Potter is author of a number of books on power engineering, thermodynamics and farm motors and of more than three hundred engineering, educational and scientific papers and articles. He served as Associate Member of the U. S. Naval Consulting Board, 1917-19; Director, Industrial Preparedness for the State of Kansas, 1917-18; District Educational Director, War Department Committee on Education and Special Training, 1918-19; Consulting Expert, U. S. Bureau of Education, 1928 and 1931, and Consultant, National Resources Committee, 1936 and 1938. He is now serving as Chairman of Engineering Defense Training and Consultant, U. S. Office of Education.

The Society for the Promotion of Engi-

neering Education awarded the Lamme Medal, for achievement in Engineering Education, to Dr. Potter in June, 1940.

Dr. Potter's article (page 15) was prepared at the request of the editor, by abstracting parts of an address he delivered in Chicago on November 11, 1940, before the Association of Land-Grant Colleges and Universities.

**Mr. A. M. Rupkey** (The Loop Course, page 20), was graduated from the University of Arizona in 1929 with the degree of B. S. with Distinction. For several months following, he was with the Standard Oil Company of California, engaged in substation work.

Early in 1930 Mr. Rupkey entered the employ of the Bethlehem Steel Company, at Bethlehem, Pennsylvania. Following his initial training at the Home Office, he was transferred to the Industrial Relations Department of the Maryland Plant, at Sparrows Point.

In 1934 he became assistant to the Manager of Industrial Relations, at Bethlehem, and since 1937, when he was appointed Manager of Training, he has directed all of the training and educational activities of the Company. "The Loop Course" is one of these.

## BOOK REVIEWS AND DIGESTS

(Continued from page 58)

gestions are practical, and they have this merit—they work." (To be more fully reviewed in the March issue.)

**OCCUPATIONAL TRENDS IN THE UNITED STATES**, *H. Dewey Anderson and Percy E. Davidson, Stanford University Press, 1940, 618 pp., \$6.50 (including*

Supplement containing 1940 Census data).

An invaluable reference book for guidance counsellors. It is an extensive research work covering industrial history and current reports, and based on census data on occupations of the gainfully employed since 1870. The book combines necessary statistics and the authors' interpretation in meaningful and useful form. (To be more fully reviewed in the March issue.)

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# UNIVERSITY OF PENNSYLVANIA

## PHILADELPHIA

1740



1940

*The Work of the University is Divided into the Following Undergraduate and Graduate Departments and Other Divisions:*

The College	The Department of Landscape Architecture
The College Collateral Courses	The College of Liberal Arts for Women
The Summer School	The Graduate School
The Towne Scientific School	The School of Medicine
The Moore School of Electrical Engineering	The Law School
The Wharton School of Finance and Commerce	The School of Dentistry
The Post Graduate Division of the Wharton School	The Courses in Oral Hygiene
The Institute of Local and State Government	The School of Veterinary Medicine
The School of Education	The Graduate School of Medicine
The Division of Nursing Education	The Evening School of Accounts and Finance
The Illman-Carter Unit	The Extension Schools
The Division of Vocational Teacher Education	The Department of Physical Education
The Division of Cultural Olympics	The Division of Physical Instruction
The Division of Schoolmen's Week	The Division of Student Health
The School of Fine Arts	The Division of Intercollegiate Athletics
The Department of Music	The Division of Physical Education for Women
	The Division of Student Affairs
	The Reserve Officers Training Corps of Army and Navy
	The Psychological Clinic

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*Information on the above University Departments and Divisions may be secured from the Secretary's Office, University of Pennsylvania, 3446 Walnut Street, Philadelphia, Pa.*

### Central Commercial High School

Every senior at Central Commercial High School in New York City must complete four weeks of work in an office during the last semester. Jobs are provided in the Board of Education Building, in the various high schools, in educational departments or in business offices working for regular "bosses" as secretaries, clerical assistants or receptionists.

The actual office training is broken up into two periods of two weeks each. Between jobs, clinics are held to discuss problems, failings, errors, detrimental personality traits, etc. The report sent to the school by the employer is also studied and an attempt is made to remedy faults before the second work period.

The success of the plan for obtaining experience is shown by the fact that almost one hundred per cent of the students who have been successful during their work assignments have been placed in jobs paying from \$15 to \$18 weekly. Only 40 to 50 percent of the seniors were as fortunate a year ago.

*Your Future, Oct. 21, 1940*



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index 1/6/40

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